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NOTE: Where it is feasible, a syllabus (headnote) will be released, as is being done in connection with this case, at the time the opinion is issued. The syllabus constitutes no part of the opinion of the Court but has been prepared by the Reporter of Decisions for the convenience of the reader. See *United States* v. *Detroit Timber & Lumber Co.*, 200 U. S. 321, 337.

SUPREME COURT OF THE UNITED STATES

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MASSACHUSETTS ET AL. *v.* ENVIRONMENTAL PROTECTION AGENCY ET AL.

CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

No. 05–1120. Argued November 29, 2006—Decided April 2, 2007

Based on respected scientific opinion that a well-documented rise in global temperatures and attendant climatological and environmental changes have resulted from a significant increase in the atmospheric concentration of "greenhouse gases," a group of private organizations petitioned the Environmental Protection Agency (EPA) to begin regulating the emissions of four such gases, including carbon dioxide, under §202(a)(1) of the Clean Air Act, which requires that the EPA "shall by regulation prescribe . . . standards applicable to the emission of any air pollutant from any class . . . of new motor vehicles . . . which in [the EPA Administrator's] judgment cause[s], or contribute[s] to, air pollution . . . reasonably . . . anticipated to endanger public health or welfare," 42 U. S. C. §7521(a)(1). The Act defines "air pollutant" to include "any air pollution agent . . . , including any physical, chemical . . . substance . . . emitted into . . . the ambient air." §7602(g). EPA ultimately denied the petition, reasoning that (1) the Act does not authorize it to issue mandatory regulations to address global climate change, and (2) even if it had the authority to set greenhouse gas emission standards, it would have been unwise to do so at that time because a causal link between greenhouse gases and the increase in global surface air temperatures was not unequivocally established. The agency further characterized any EPA regulation of motor-vehicle emissions as a piecemeal approach to climate change that would conflict with the President's comprehensive approach involving additional support for technological innovation, the creation of nonregulatory programs to encourage voluntary private-sector reductions in greenhouse gas emissions, and further research on climate change, and might hamper the President's ability

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to persuade key developing nations to reduce emissions.

Petitioners, now joined by intervenor Massachusetts and other state and local governments, sought review in the D. C. Circuit. Although each of the three judges on the panel wrote separately, two of them agreed that the EPA Administrator properly exercised his discretion in denying the rulemaking petition. One judge concluded that the Administrator's exercise of "judgment" as to whether a pollutant could "reasonably be anticipated to endanger public health or welfare," §7521(a)(1), could be based on scientific uncertainty as well as other factors, including the concern that unilateral U. S. regulation of motor-vehicle emissions could weaken efforts to reduce other countries' greenhouse gas emissions. The second judge opined that petitioners had failed to demonstrate the particularized injury to them that is necessary to establish standing under Article III, but accepted the contrary view as the law of the case and joined the judgment on the merits as the closest to that which he preferred. The court therefore denied review.

Held:

1. Petitioners have standing to challenge the EPA's denial of their rulemaking petition. Pp. 12–23.

(a) This case suffers from none of the defects that would preclude it from being a justiciable Article III "Controvers[y]." See, *e.g.*, *Luther* v. *Borden*, 7 How. 1. Moreover, the proper construction of a congressional statute is an eminently suitable question for federal-court resolution, and Congress has authorized precisely this type of challenge to EPA action, see 42 U. S. C. §7607(b)(1). Contrary to EPA's argument, standing doctrine presents no insuperable jurisdictional obstacle here. To demonstrate standing, a litigant must show that it has suffered a concrete and particularized injury that is either actual or imminent, that the injury is fairly traceable to the defendant, and that a favorable decision will likely redress that injury. See *Lujan* v. *Defenders of Wildlife*, 504 U. S. 555, 560–561. However, a litigant to whom Congress has "accorded a procedural right to protect his concrete interests," *id.*, at 573, n. 7—here, the right to challenge agency action unlawfully withheld, §7607(b)(1)—"can assert that right without meeting all the normal standards for redressability and immediacy," *ibid.* Only one petitioner needs to have standing to authorize review. See *Rumsfeld* v. *Forum for Academic and Institutional Rights, Inc.*, 547 U. S. 47, 52, n. 2. Massachusetts has a special position and interest here. It is a sovereign State and not, as in *Lujan*, a private individual, and it actually owns a great deal of the territory alleged to be affected. The sovereign prerogatives to force reductions in greenhouse gas emissions, to negotiate emissions treaties with developing countries, and (in some circumstances) to exercise the police

power to reduce motor-vehicle emissions are now lodged in the Federal Government. Because congress has ordered EPA to protect Massachusetts (among others) by prescribing applicable standards, §7521(a)(1), and has given Massachusetts a concomitant procedural right to challenge the rejection of its rulemaking petition as arbitrary and capricious, §7607(b)(1), petitioners' submissions as they pertain to Massachusetts have satisfied the most demanding standards of the adversarial process. EPA's steadfast refusal to regulate greenhouse gas emissions presents a risk of harm to Massachusetts that is both "actual" and "imminent," *Lujan*, 504 U. S., at 560, and there is a "substantial likelihood that the judicial relief requested" will prompt EPA to take steps to reduce that risk, *Duke Power Co.* v. *Carolina Environmental Study Group, Inc.*, 438 U. S. 59, 79. Pp. 12–17.

(b) The harms associated with climate change are serious and well recognized. The Government's own objective assessment of the relevant science and a strong consensus among qualified experts indicate that global warming threatens, *inter alia*, a precipitate rise in sea levels, severe and irreversible changes to natural ecosystems, a significant reduction in winter snowpack with direct and important economic consequences, and increases in the spread of disease and the ferocity of weather events. That these changes are widely shared does not minimize Massachusetts' interest in the outcome of this litigation. See *Federal Election Comm'n* v. *Akins*, 524 U. S. 11, 24. According to petitioners' uncontested affidavits, global sea levels rose between 10 and 20 centimeters over the 20th century as a result of global warming and have already begun to swallow Massachusetts' coastal land. Remediation costs alone, moreover, could reach hundreds of millions of dollars. Pp. 17–19.

(c) Given EPA's failure to dispute the existence of a causal connection between man-made greenhouse gas emissions and global warming, its refusal to regulate such emissions, at a minimum, "contributes" to Massachusetts' injuries. EPA overstates its case in arguing that its decision not to regulate contributes so insignificantly to petitioners' injuries that it cannot be haled into federal court, and that there is no realistic possibility that the relief sought would mitigate global climate change and remedy petitioners' injuries, especially since predicted increases in emissions from China, India, and other developing nations will likely offset any marginal domestic decrease EPA regulation could bring about. Agencies, like legislatures, do not generally resolve massive problems in one fell swoop, see *Williamson* v. *Lee Optical of Okla., Inc.*, 348 U. S. 483, 489, but instead whittle away over time, refining their approach as circumstances change and they develop a more nuanced understanding of how best to proceed, cf. *SEC* v. *Chenery Corp.*, 332 U. S. 194, 202–203. That a

first step might be tentative does not by itself negate federal-court jurisdiction. And reducing domestic automobile emissions is hardly tentative. Leaving aside the other greenhouse gases, the record indicates that the U. S. transportation sector emits an enormous quantity of carbon dioxide into the atmosphere. Pp. 20–21.

(d) While regulating motor-vehicle emissions may not by itself *reverse* global warming, it does not follow that the Court lacks jurisdiction to decide whether EPA has a duty to take steps to *slow* or *reduce* it. See *Larson* v. *Valente*, 456 U. S. 228, 243, n. 15. Because of the enormous potential consequences, the fact that a remedy's effectiveness might be delayed during the (relatively short) time it takes for a new motor-vehicle fleet to replace an older one is essentially irrelevant. Nor is it dispositive that developing countries are poised to substantially increase greenhouse gas emissions: A reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere. The Court attaches considerable significance to EPA's espoused belief that global climate change must be addressed. Pp. 21–23.

2. The scope of the Court's review of the merits of the statutory issues is narrow. Although an agency's refusal to initiate enforcement proceedings is not ordinarily subject to judicial review, *Heckler* v. *Chaney*, 470 U. S. 821, there are key differences between nonenforcement and denials of rulemaking petitions that are, as in the present circumstances, expressly authorized. EPA concluded alternatively in its petition denial that it lacked authority under §7521(a)(1) to regulate new vehicle emissions because carbon dioxide is not an "air pollutant" under §7602, and that, even if it possessed authority, it would decline to exercise it because regulation would conflict with other administration priorities. Because the Act expressly permits review of such an action, §7607(b)(1), this Court "may reverse [it if it finds it to be] arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." §7607(d)(9). Pp. 24–25.

3. Because greenhouse gases fit well within the Act's capacious definition of "air pollutant," EPA has statutory authority to regulate emission of such gases from new motor vehicles. That definition—which includes "*any* air pollution agent . . . , including *any* physical, chemical, . . . substance . . . emitted into . . . the ambient air . . . ." §7602(g) (emphasis added)—embraces all airborne compounds of whatever stripe. Moreover, carbon dioxide and other greenhouse gases are undoubtedly "physical [and] chemical . . . substance[s]." *Ibid.* EPA's reliance on postenactment congressional actions and deliberations it views as tantamount to a command to refrain from regulating greenhouse gas emissions is unavailing. Even if postenactment legislative history could shed light on the meaning of an

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otherwise-unambiguous statute. EPA identifies nothing suggesting that Congress meant to curtail EPA's power to treat greenhouse gases as air pollutants. The Court has no difficulty reconciling Congress' various efforts to promote interagency collaboration and research to better understand climate change with the agency's preexisting mandate to regulate "any air pollutant" that may endanger the public welfare. *FDA* v. *Brown & Williamson Tobacco Corp.*, 529 U. S. 120, 133, distinguished. Also unpersuasive is EPA's argument that its regulation of motor-vehicle carbon dioxide emissions would require it to tighten mileage standards, a job (according to EPA) that Congress has assigned to the Department of Transportation. The fact that DOT's mandate to promote energy efficiency by setting mileage standards may overlap with EPA's environmental responsibilities in no way licenses EPA to shirk its duty to protect the public "health" and "welfare," §7521(a)(1). Pp. 25–30.

4. EPA's alternative basis for its decision—that even if it has statutory authority to regulate greenhouse gases, it would be unwise to do so at this time—rests on reasoning divorced from the statutory text. While the statute conditions EPA action on its formation of a "judgment," that judgment must relate to whether an air pollutant "cause[s], or contribute[s] to, air pollution which may reasonably be anticipated to endanger public health or welfare." §7601(a)(1). Under the Act's clear terms, EPA can avoid promulgating regulations only if it determines that greenhouse gases do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do. It has refused to do so, offering instead a laundry list of reasons not to regulate, including the existence of voluntary Executive Branch programs providing a response to global warming and impairment of the President's ability to negotiate with developing nations to reduce emissions. These policy judgments have nothing to do with whether greenhouse gas emissions contribute to climate change and do not amount to a reasoned justification for declining to form a scientific judgment. Nor can EPA avoid its statutory obligation by noting the uncertainty surrounding various features of climate change and concluding that it would therefore be better not to regulate at this time. If the scientific uncertainty is so profound that it precludes EPA from making a reasoned judgment, it must say so. The statutory question is whether sufficient information exists for it to make an endangerment finding. Instead, EPA rejected the rulemaking petition based on impermissible considerations. Its action was therefore "arbitrary, capricious, or otherwise not in accordance with law," §7607(d)(9). On remand, EPA must ground its reasons for action or inaction in the statute. Pp. 30–32.

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415 F. 3d 50, reversed and remanded.

STEVENS, J., delivered the opinion of the Court, in which KENNEDY, SOUTER, GINSBURG, and BREYER, JJ., joined. ROBERTS, C. J., filed a dissenting opinion, in which SCALIA, THOMAS, and ALITO, JJ., joined. SCALIA, J., filed a dissenting opinion, in which ROBERTS, C. J., and THOMAS and ALITO, JJ., joined.

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SUPREME COURT OF THE UNITED STATES

No. 05–1120

MASSACHUSETTS, ET AL., PETITIONERS *v.* ENVIRONMENTAL PROTECTION AGENCY ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

[April 2, 2007]

JUSTICE STEVENS delivered the opinion of the Court.

A well-documented rise in global temperatures has coincided with a significant increase in the concentration of carbon dioxide in the atmosphere. Respected scientists believe the two trends are related. For when carbon dioxide is released into the atmosphere, it acts like the ceiling of a greenhouse, trapping solar energy and retarding the escape of reflected heat. It is therefore a species—the most important species—of a "greenhouse gas."

Calling global warming "the most pressing environmental challenge of our time,"[1] a group of States,[2] local governments,[3] and private organizations,[4] alleged in a

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[1] Pet. for Cert. 22.

[2] California, Connecticut, Illinois, Maine, Massachusetts, New Jersey, New Mexico, New York, Oregon, Rhode Island, Vermont, and Washington.

[3] District of Columbia, American Samoa, New York City, and Baltimore.

[4] Center for Biological Diversity, Center for Food Safety, Conservation Law Foundation, Environmental Advocates, Environmental Defense, Friends of the Earth, Greenpeace, International Center for Technology Assessment, National Environmental Trust, Natural Resources Defense Council, Sierra Club, Union of Concerned Scientists, and U. S. Public Interest Research Group.

petition for certiorari that the Environmental Protection Agency (EPA) has abdicated its responsibility under the Clean Air Act to regulate the emissions of four greenhouse gases, including carbon dioxide. Specifically, petitioners asked us to answer two questions concerning the meaning of §202(a)(1) of the Act: whether EPA has the statutory authority to regulate greenhouse gas emissions from new motor vehicles; and if so, whether its stated reasons for refusing to do so are consistent with the statute.

In response, EPA, supported by 10 intervening States[5] and six trade associations,[6] correctly argued that we may not address those two questions unless at least one petitioner has standing to invoke our jurisdiction under Article III of the Constitution. Notwithstanding the serious character of that jurisdictional argument and the absence of any conflicting decisions construing §202(a)(1), the unusual importance of the underlying issue persuaded us to grant the writ. 548 U. S. __ (2006).

I

Section 202(a)(1) of the Clean Air Act, as added by Pub. L. 89–272, §101(8), 79 Stat. 992, and as amended by, *inter alia*, 84 Stat. 1690 and 91 Stat. 791, 42 U. S. C. §7521(a)(1), provides:

> "The [EPA] Administrator shall by regulation prescribe (and from time to time revise) in accordance with the provisions of this section, standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in his judgment cause, or contribute to, air pollution which may reasonably be anticipated

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[5] Alaska, Idaho, Kansas, Michigan, Nebraska, North Dakota, Ohio, South Dakota, Texas, and Utah.

[6] Alliance of Automobile Manufacturers, National Automobile Dealers Association, Engine Manufacturers Association, Truck Manufacturers Association, CO_2 Litigation Group, and Utility Air Regulatory Group.

to endanger public health or welfare . . . ."[7]

The Act defines "air pollutant" to include "any air pollution agent or combination of such agents, including any physical, chemical, biological, radioactive . . . substance or matter which is emitted into or otherwise enters the ambient air." §7602(g). "Welfare" is also defined broadly: among other things, it includes "effects on . . . weather . . . and climate." §7602(h).

When Congress enacted these provisions, the study of climate change was in its infancy.[8] In 1959, shortly after the U. S. Weather Bureau began monitoring atmospheric carbon dioxide levels, an observatory in Mauna Loa, Hawaii, recorded a mean level of 316 parts per million. This was well above the highest carbon dioxide concentration—no more than 300 parts per million—revealed in the 420,000-year-old ice-core record.[9] By the time Congress

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[7]The 1970 version of §202(a)(1) used the phrase "which endangers the public health or welfare" rather than the more-protective "which may reasonably be anticipated to endanger public health or welfare." See §6(a) of the Clean Air Amendments of 1970, 84 Stat. 1690. Congress amended §202(a)(1) in 1977 to give its approval to the decision in *Ethyl Corp.* v. *EPA*, 541 F. 2d 1, 25 (CADC 1976) (en banc), which held that the Clean Air Act "and common sense . . . demand regulatory action to prevent harm, even if the regulator is less than certain that harm is otherwise inevitable." See §401(d)(1) of the Clean Air Act Amendments of 1977, 91 Stat. 791; see also H. R. Rep. No. 95–294, p. 49 (1977).

[8]The Council on Environmental Quality had issued a report in 1970 concluding that "[m]an may be changing his weather." Environmental Quality: The First Annual Report 93. Considerable uncertainty remained in those early years, and the issue went largely unmentioned in the congressional debate over the enactment of the Clean Air Act. But see 116 Cong. Rec. 32914 (1970) (statement of Sen. Boggs referring to Council's conclusion that "[a]ir pollution alters the climate and may produce global changes in temperature").

[9]See Intergovernmental Panel on Climate Change, Climate Change 2001: Synthesis Report, pp. 202–203 (2001). By drilling through thick Antarctic ice sheets and extracting "cores," scientists can examine ice

drafted §202(a)(1) in 1970, carbon dioxide levels had reached 325 parts per million.[10]

In the late 1970's, the Federal Government began devoting serious attention to the possibility that carbon dioxide emissions associated with human activity could provoke climate change. In 1978, Congress enacted the National Climate Program Act, 92 Stat. 601, which required the President to establish a program to "assist the Nation and the world to understand and respond to natural and man-induced climate processes and their implications," *id.*, §3. President Carter, in turn, asked the National Research Council, the working arm of the National Academy of Sciences, to investigate the subject. The Council's response was unequivocal: "If carbon dioxide continues to increase, the study group finds no reason to doubt that climate changes will result and no reason to believe that these changes will be negligible. . . . A wait-and-see policy may mean waiting until it is too late."[11]

Congress next addressed the issue in 1987, when it enacted the Global Climate Protection Act, Title XI of Pub. L. 100–204, 101 Stat. 1407, note following 15 U. S. C. §2901. Finding that "manmade pollution—the release of carbon dioxide, chlorofluorocarbons, methane, and other trace gases into the atmosphere—may be producing a

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from long ago and extract small samples of ancient air. That air can then be analyzed, yielding estimates of carbon dioxide levels. *Ibid.*

[10] A more dramatic rise was yet to come: In 2006 carbon dioxide levels reached 382 parts per million, see Dept. of Commerce, National Oceanic & Atmospheric Administration, Mauna Loa CO_2 Monthly Mean Data, www.esrl.noaa.gov/gmd/ccgg/trends/co2_mm_mlo.dat (all Internet materials as visited Mar. 29, 2007, and available in Clerk of Court's case file), a level thought to exceed the concentration of carbon dioxide in the atmosphere at any point over the past 20-million years. See Intergovernmental Panel on Climate Change, Technical Summary of Working Group I Report 39 (2001).

[11] Climate Research Board, Carbon Dioxide and Climate: A Scientific Assessment, p. vii (1979).

long-term and substantial increase in the average temperature on Earth," §1102(1), 101 Stat. 1408, Congress directed EPA to propose to Congress a "coordinated national policy on global climate change," §1103(b), and ordered the Secretary of State to work "through the channels of multilateral diplomacy" and coordinate diplomatic efforts to combat global warming, §1103(c). Congress emphasized that "ongoing pollution and deforestation may be contributing now to an irreversible process" and that "[n]ecessary actions must be identified and implemented in time to protect the climate." §1102(4).

Meanwhile, the scientific understanding of climate change progressed. In 1990, the Intergovernmental Panel on Climate Change (IPCC), a multinational scientific body organized under the auspices of the United Nations, published its first comprehensive report on the topic. Drawing on expert opinions from across the globe, the IPCC concluded that "emissions resulting from human activities are substantially increasing the atmospheric concentrations of . . . greenhouse gases [which] will enhance the greenhouse effect, resulting on average in an additional warming of the Earth's surface."[12]

Responding to the IPCC report, the United Nations convened the "Earth Summit" in 1992 in Rio de Janeiro. The first President Bush attended and signed the United Nations Framework Convention on Climate Change (UNFCCC), a nonbinding agreement among 154 nations to reduce atmospheric concentrations of carbon dioxide and other greenhouse gases for the purpose of "prevent[ing] dangerous anthropogenic [*i.e.*, human-induced] interference with the [Earth's] climate system."[13] S. Treaty Doc.

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[12] IPCC, Climate Change: The IPCC Scientific Assessment, p. xi (J. Houghton, G. Jenkins, & J. Ephraums eds. 1991).

[13] The industrialized countries listed in Annex I to the UNFCCC undertook to reduce their emissions of greenhouse gases to 1990 levels by the year 2000. No immediate restrictions were imposed on developing

No. 102–38, Art. 2, p. 5 (1992). The Senate unanimously ratified the treaty.

Some five years later—after the IPCC issued a second comprehensive report in 1995 concluding that "[t]he balance of evidence suggests there is a discernible human influence on global climate"[14]—the UNFCCC signatories met in Kyoto, Japan, and adopted a protocol that assigned mandatory targets for industrialized nations to reduce greenhouse gas emissions. Because those targets did not apply to developing and heavily polluting nations such as China and India, the Senate unanimously passed a resolution expressing its sense that the United States should not enter into the Kyoto Protocol. See S. Res. 98, 105th Cong., 1st Sess. (July 25, 1997) (as passed). President Clinton did not submit the protocol to the Senate for ratification.

II

On October 20, 1999, a group of 19 private organizations[15] filed a rulemaking petition asking EPA to regulate "greenhouse gas emissions from new motor vehicles under §202 of the Clean Air Act." App. 5. Petitioners maintained that 1998 was the "warmest year on record"; that carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons are "heat trapping greenhouse gases"; that green-

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countries, including China and India. They could choose to become Annex I countries when sufficiently developed.

[14] IPCC, Climate Change 1995, The Science of Climate Change, p. 4.

[15] Alliance for Sustainable Communities; Applied Power Technologies, Inc.; Bio Fuels America; The California Solar Energy Industries Assn.; Clements Environmental Corp.; Environmental Advocates; Environmental and Energy Study Institute; Friends of the Earth; Full Circle Energy Project, Inc.; The Green Party of Rhode Island; Greenpeace USA; International Center for Technology Assessment; Network for Environmental and Economic Responsibility of the United Church of Christ; New Jersey Environmental Watch; New Mexico Solar Energy Assn.; Oregon Environmental Council; Public Citizen; Solar Energy Industries Assn.; The SUN DAY Campaign. See App. 7–11.

house gas emissions have significantly accelerated climate change; and that the IPCC's 1995 report warned that "carbon dioxide remains the most important contributor to [man-made] forcing of climate change." *Id.*, at 13 (internal quotation marks omitted). The petition further alleged that climate change will have serious adverse effects on human health and the environment. *Id.*, at 22–35. As to EPA's statutory authority, the petition observed that the agency itself had already confirmed that it had the power to regulate carbon dioxide. See *id.*, at 18, n. 21. In 1998, Jonathan Z. Cannon, then EPA's General Counsel, prepared a legal opinion concluding that "CO_2 emissions are within the scope of EPA's authority to regulate," even as he recognized that EPA had so far declined to exercise that authority. *Id.*, at 54 (memorandum to Carol M. Browner, Administrator (Apr. 10, 1998) (hereinafter Cannon memorandum)). Cannon's successor, Gary S. Guzy, reiterated that opinion before a congressional committee just two weeks before the rulemaking petition was filed. See *id.*, at 61.

Fifteen months after the petition's submission, EPA requested public comment on "all the issues raised in [the] petition," adding a "particular" request for comments on "any scientific, technical, legal, economic or other aspect of these issues that may be relevant to EPA's consideration of this petition." 66 Fed. Reg. 7486, 7487 (2001). EPA received more than 50,000 comments over the next five months. See 68 Fed. Reg. 52924 (2003).

Before the close of the comment period, the White House sought "assistance in identifying the areas in the science of climate change where there are the greatest certainties and uncertainties" from the National Research Council, asking for a response "as soon as possible." App. 213. The result was a 2001 report titled Climate Change: An Analysis of Some Key Questions (NRC Report), which, drawing heavily on the 1995 IPCC report, concluded that "[g]reenhouse

gases are accumulating in Earth's atmosphere as a result of human activities, causing surface air temperatures and subsurface ocean temperatures to rise. Temperatures are, in fact, rising." NRC Report 1.

On September 8, 2003, EPA entered an order denying the rulemaking petition. 68 Fed. Reg. 52922. The agency gave two reasons for its decision: (1) that contrary to the opinions of its former general counsels, the Clean Air Act does not authorize EPA to issue mandatory regulations to address global climate change, see *id.*, at 52925–52929; and (2) that even if the agency had the authority to set greenhouse gas emission standards, it would be unwise to do so at this time, *id.*, at 52929–52931.

In concluding that it lacked statutory authority over greenhouse gases, EPA observed that Congress "was well aware of the global climate change issue when it last comprehensively amended the [Clean Air Act] in 1990," yet it declined to adopt a proposed amendment establishing binding emissions limitations. *Id.*, at 52926. Congress instead chose to authorize further investigation into climate change. *Ibid.* (citing §§103(g) and 602(e) of the Clean Air Act Amendments of 1990, 104 Stat. 2652, 2703, 42 U. S. C. §§7403(g)(1) and 7671a(e)). EPA further reasoned that Congress' "specially tailored solutions to global atmospheric issues," 68 Fed. Reg. 52926—in particular, its 1990 enactment of a comprehensive scheme to regulate pollutants that depleted the ozone layer, see Title VI, 104 Stat. 2649, 42 U. S. C. §§7671–7671q—counseled against reading the general authorization of §202(a)(1) to confer regulatory authority over greenhouse gases.

EPA stated that it was "urged on in this view" by this Court's decision in *FDA* v. *Brown & Williamson Tobacco Corp.*, 529 U. S. 120 (2000). In that case, relying on "tobacco['s] unique political history," *id.*, at 159, we invalidated the Food and Drug Administration's reliance on its general authority to regulate drugs as a basis for asserting

jurisdiction over an "industry constituting a significant portion of the American economy," *ibid.*

EPA reasoned that climate change had its own "political history": Congress designed the original Clean Air Act to address *local* air pollutants rather than a substance that "is fairly consistent in its concentration throughout the *world's* atmosphere," 68 Fed. Reg. 52927 (emphasis added); declined in 1990 to enact proposed amendments to force EPA to set carbon dioxide emission standards for motor vehicles, *ibid.* (citing H. R. 5966, 101st Cong., 2d Sess. (1990)); and addressed global climate change in other legislation, 68 Fed. Reg. 52927. Because of this political history, and because imposing emission limitations on greenhouse gases would have even greater economic and political repercussions than regulating tobacco, EPA was persuaded that it lacked the power to do so. *Id.*, at 52928. In essence, EPA concluded that climate change was so important that unless Congress spoke with exacting specificity, it could not have meant the agency to address it.

Having reached that conclusion, EPA believed it followed that greenhouse gases cannot be "air pollutants" within the meaning of the Act. See *ibid.* ("It follows from this conclusion, that [greenhouse gases], as such, are not air pollutants under the [Clean Air Act's] regulatory provisions . . ."). The agency bolstered this conclusion by explaining that if carbon dioxide were an air pollutant, the only feasible method of reducing tailpipe emissions would be to improve fuel economy. But because Congress has already created detailed mandatory fuel economy standards subject to Department of Transportation (DOT) administration, the agency concluded that EPA regulation would either conflict with those standards or be superfluous. *Id.*, at 52929.

Even assuming that it had authority over greenhouse gases, EPA explained in detail why it would refuse to exer-

cise that authority. The agency began by recognizing that the concentration of greenhouse gases has dramatically increased as a result of human activities, and acknowledged the attendant increase in global surface air temperatures. *Id.*, at 52930. EPA nevertheless gave controlling importance to the NRC Report's statement that a causal link between the two "'cannot be unequivocally established.'" *Ibid.* (quoting NRC Report 17). Given that residual uncertainty, EPA concluded that regulating greenhouse gas emissions would be unwise. 68 Fed. Reg. 52930.

The agency furthermore characterized any EPA regulation of motor-vehicle emissions as a "piecemeal approach" to climate change, *id.*, at 52931, and stated that such regulation would conflict with the President's "comprehensive approach" to the problem, *id.*, at 52932. That approach involves additional support for technological innovation, the creation of nonregulatory programs to encourage voluntary private-sector reductions in greenhouse gas emissions, and further research on climate change—not actual regulation. *Id.*, at 52932–52933. According to EPA, unilateral EPA regulation of motor-vehicle greenhouse gas emissions might also hamper the President's ability to persuade key developing countries to reduce greenhouse gas emissions. *Id.*, at 52931.

III

Petitioners, now joined by intervenor States and local governments, sought review of EPA's order in the United States Court of Appeals for the District of Columbia Circuit.[16] Although each of the three judges on the panel wrote a separate opinion, two judges agreed "that the EPA

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[16] See 42 U. S. C. §7607(b)(1) ("A petition for review of action of the Administrator in promulgating any . . . standard under section 7521 of this title . . . or final action taken, by the Administrator under this chapter may be filed only in the United States Court of Appeals for the District of Columbia").

Administrator properly exercised his discretion under §202(a)(1) in denying the petition for rule making." 415 F. 3d 50, 58 (2005). The court therefore denied the petition for review.

In his opinion announcing the court's judgment, Judge Randolph avoided a definitive ruling as to petitioners' standing, *id.*, at 56, reasoning that it was permissible to proceed to the merits because the standing and the merits inquiries "overlap[ped]," *ibid.* Assuming without deciding that the statute authorized the EPA Administrator to regulate greenhouse gas emissions that "in his judgment" may "reasonably be anticipated to endanger public health or welfare," 42 U. S. C. §7521(a)(1), Judge Randolph concluded that the exercise of that judgment need not be based solely on scientific evidence, but may also be informed by the sort of policy judgments that motivate congressional action. 415 F. 3d, at 58. Given that framework, it was reasonable for EPA to base its decision on scientific uncertainty as well as on other factors, including the concern that unilateral regulation of U. S. motor-vehicle emissions could weaken efforts to reduce greenhouse gas emissions from other countries. *Ibid.*

Judge Sentelle wrote separately because he believed petitioners failed to "demonstrat[e] the element of injury necessary to establish standing under Article III." *Id.*, at 59 (opinion dissenting in part and concurring in judgment). In his view, they had alleged that global warming is "harmful to humanity at large," but could not allege "particularized injuries" to themselves. *Id.*, at 60 (citing *Lujan* v. *Defenders of Wildlife*, 504 U. S. 555, 562 (1992)). While he dissented on standing, however, he accepted the contrary view as the law of the case and joined Judge Randolph's judgment on the merits as the closest to that which he preferred. 415 F. 3d, at 60–61.

Judge Tatel dissented. Emphasizing that EPA nowhere challenged the factual basis of petitioners' affidavits, *id.*,

at 66, he concluded that at least Massachusetts had "satisfied each element of Article III standing—injury, causation, and redressability," *id.*, at 64. In Judge Tatel's view, the "'substantial probability,'" *id.*, at 66, that projected rises in sea level would lead to serious loss of coastal property was a "far cry" from the kind of generalized harm insufficient to ground Article III jurisdiction. *Id.*, at 65. He found that petitioners' affidavits more than adequately supported the conclusion that EPA's failure to curb greenhouse gas emissions contributed to the sea level changes that threatened Massachusetts' coastal property. *Ibid.* As to redressability, he observed that one of petitioners' experts, a former EPA climatologist, stated that "'[a]chievable reductions in emissions of CO_2 and other [greenhouse gases] from U. S. motor vehicles would . . . delay and moderate many of the adverse impacts of global warming.'" *Ibid.* (quoting declaration of Michael MacCracken, former Executive Director, U. S. Global Change Research Program ¶5(e) (hereinafter MacCracken Decl.), available in 2 Petitioners' Standing Appendix in No. 03–1361, etc., (CADC), p. 209 (Stdg. App.)). He further noted that the one-time director of EPA's motor-vehicle pollution control efforts stated in an affidavit that enforceable emission standards would lead to the development of new technologies that "'would gradually be mandated by other countries around the world.'" 415 F. 3d, at 66 (quoting declaration of Michael Walsh ¶¶7–8, 10, Stdg. App. 309–310, 311). On the merits, Judge Tatel explained at length why he believed the text of the statute provided EPA with authority to regulate greenhouse gas emissions, and why its policy concerns did not justify its refusal to exercise that authority. 415 F. 3d, at 67–82.

IV

Article III of the Constitution limits federal-court jurisdiction to "Cases" and "Controversies." Those two words

confine "the business of federal courts to questions presented in an adversary context and in a form historically viewed as capable of resolution through the judicial process." *Flast* v. *Cohen*, 392 U. S. 83, 95 (1968). It is therefore familiar learning that no justiciable "controversy" exists when parties seek adjudication of a political question, *Luther* v. *Borden*, 7 How. 1 (1849), when they ask for an advisory opinion, *Hayburn's Case*, 2 Dall. 409 (1792), see also *Clinton* v. *Jones*, 520 U. S. 681, 700, n. 33 (1997), or when the question sought to be adjudicated has been mooted by subsequent developments, *California* v. *San Pablo & Tulare R. Co.*, 149 U. S. 308 (1893). This case suffers from none of these defects.

The parties' dispute turns on the proper construction of a congressional statute, a question eminently suitable to resolution in federal court. Congress has moreover authorized this type of challenge to EPA action. See 42 U. S. C. §7607(b)(1). That authorization is of critical importance to the standing inquiry: "Congress has the power to define injuries and articulate chains of causation that will give rise to a case or controversy where none existed before." *Lujan*, 504 U. S., at 580 (KENNEDY, J., concurring in part and concurring in judgment). "In exercising this power, however, Congress must at the very least identify the injury it seeks to vindicate and relate the injury to the class of persons entitled to bring suit." *Ibid.* We will not, therefore, "entertain citizen suits to vindicate the public's nonconcrete interest in the proper administration of the laws." *Id.*, at 581.

EPA maintains that because greenhouse gas emissions inflict widespread harm, the doctrine of standing presents an insuperable jurisdictional obstacle. We do not agree. At bottom, "the gist of the question of standing" is whether petitioners have "such a personal stake in the outcome of the controversy as to assure that concrete adverseness which sharpens the presentation of issues upon which the

court so largely depends for illumination." *Baker* v. *Carr*, 369 U. S. 186, 204 (1962). As JUSTICE KENNEDY explained in his *Lujan* concurrence:

> "While it does not matter how many persons have been injured by the challenged action, the party bringing suit must show that the action injures him in a concrete and personal way. This requirement is not just an empty formality. It preserves the vitality of the adversarial process by assuring both that the parties before the court have an actual, as opposed to professed, stake in the outcome, and that the legal questions presented . . . will be resolved, not in the rarified atmosphere of a debating society, but in a concrete factual context conducive to a realistic appreciation of the consequences of judicial action." 504 U. S., at 581 (internal quotation marks omitted).

To ensure the proper adversarial presentation, *Lujan* holds that a litigant must demonstrate that it has suffered a concrete and particularized injury that is either actual or imminent, that the injury is fairly traceable to the defendant, and that it is likely that a favorable decision will redress that injury. See *id.*, at 560–561. However, a litigant to whom Congress has "accorded a procedural right to protect his concrete interests," *id.*, at 572, n. 7—here, the right to challenge agency action unlawfully withheld, §7607(b)(1)—"can assert that right without meeting all the normal standards for redressability and immediacy," *ibid.* When a litigant is vested with a procedural right, that litigant has standing if there is some possibility that the requested relief will prompt the injury-causing party to reconsider the decision that allegedly harmed the litigant. *Ibid.*; see also *Sugar Cane Growers Cooperative of Fla.* v. *Veneman*, 289 F. 3d 89, 94–95 (CADC 2002) ("A [litigant] who alleges a deprivation of a procedural protection to which he is entitled never has to

prove that if he had received the procedure the substantive result would have been altered. All that is necessary is to show that the procedural step was connected to the substantive result").

Only one of the petitioners needs to have standing to permit us to consider the petition for review. See *Rumsfeld* v. *Forum for Academic and Institutional Rights, Inc.*, 547 U. S. 47, 52, n. 2 (2006). We stress here, as did Judge Tatel below, the special position and interest of Massachusetts. It is of considerable relevance that the party seeking review here is a sovereign State and not, as it was in *Lujan*, a private individual.

Well before the creation of the modern administrative state, we recognized that States are not normal litigants for the purposes of invoking federal jurisdiction. As Justice Holmes explained in *Georgia* v. *Tennessee Copper Co.*, 206 U. S. 230, 237 (1907), a case in which Georgia sought to protect its citizens from air pollution originating outside its borders:

> "The case has been argued largely as if it were one between two private parties; but it is not. The very elements that would be relied upon in a suit between fellow-citizens as a ground for equitable relief are wanting here. The State owns very little of the territory alleged to be affected, and the damage to it capable of estimate in money, possibly, at least, is small. This is a suit by a State for an injury to it in its capacity of *quasi*-sovereign. In that capacity the State has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air."

Just as Georgia's "independent interest . . . in all the earth and air within its domain" supported federal jurisdiction a

century ago, so too does Massachusetts' well-founded desire to preserve its sovereign territory today. Cf. *Alden* v. *Maine*, 527 U. S. 706, 715 (1999) (observing that in the federal system, the States "are not relegated to the role of mere provinces or political corporations, but retain the dignity, though not the full authority, of sovereignty"). That Massachusetts does in fact own a great deal of the "territory alleged to be affected" only reinforces the conclusion that its stake in the outcome of this case is sufficiently concrete to warrant the exercise of federal judicial power.

When a State enters the Union, it surrenders certain sovereign prerogatives. Massachusetts cannot invade Rhode Island to force reductions in greenhouse gas emissions, it cannot negotiate an emissions treaty with China or India, and in some circumstances the exercise of its police powers to reduce in-state motor-vehicle emissions might well be pre-empted. See *Alfred L. Snapp & Son, Inc.* v. *Puerto Rico ex rel. Barez*, 458 U. S. 592, 607 (1982) ("One helpful indication in determining whether an alleged injury to the health and welfare of its citizens suffices to give the State standing to sue *parens patriae* is whether the injury is one that the State, if it could, would likely attempt to address through its sovereign lawmaking powers").

These sovereign prerogatives are now lodged in the Federal Government, and Congress has ordered EPA to protect Massachusetts (among others) by prescribing standards applicable to the "emission of any air pollutant from any class or classes of new motor vehicle engines, which in [the Administrator's] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U. S. C. §7521(a)(1). Congress has moreover recognized a concomitant procedural right to challenge the rejection of its rulemaking petition as arbitrary and capricious. §7607(b)(1). Given that pro-

cedural right and Massachusetts' stake in protecting its quasi-sovereign interests, the Commonwealth is entitled to special solicitude in our standing analysis.[17]

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[17] THE CHIEF JUSTICE accuses the Court of misreading *Georgia* v. *Tennessee Copper Co.*, 206 U. S. 230 (1907), see *post*, at 3–4 (dissenting opinion), and "devis[ing] a new doctrine of state standing," *id.*, at 15. But no less an authority than Hart & Wechsler's The Federal Courts and the Federal System understands *Tennessee Copper* as a standing decision. R. Fallon, D. Meltzer, & D. Shapiro, Hart & Wechsler's The Federal Courts and the Federal System 290 (5th ed. 2003). Indeed, it devotes an entire section to chronicling the long development of cases permitting States "to litigate as *parens patriae* to protect quasi-sovereign interests—*i.e.*, public or governmental interests that concern the state as a whole." *Id.*, at 289; see, *e.g.*, *Missouri* v. *Illinois*, 180 U. S. 208, 240–241 (1901) (finding federal jurisdiction appropriate not only "in cases involving boundaries and jurisdiction over lands and their inhabitants, and in cases directly affecting the property rights and interests of a state," but also when the "substantial impairment of the health and prosperity of the towns and cities of the state" are at stake).

Drawing on *Massachusetts* v. *Mellon*, 262 U. S. 447 (1923), and *Alfred L. Snapp & Son, Inc.* v. *Puerto Rico ex rel. Barez*, 458 U. S. 592 (1982) (citing *Missouri* v. *Illinois*, 180 U. S. 208 (1901)), THE CHIEF JUSTICE claims that we "overloo[k] the fact that our cases cast significant doubt on a State's standing to assert a quasi-sovereign interest . . . against the Federal Government." *Post*, at 5. Not so. *Mellon* itself disavowed any such broad reading when it noted that the Court had been "called upon to adjudicate, not rights of person or property, not rights of dominion over physical domain, [and] *not quasi sovereign rights actually invaded or threatened*." 262 U. S., at 484–485 (emphasis added). In any event, we held in *Georgia* v. *Pennsylvania R. Co.*, 324 U. S. 439, 447 (1945), that there is a critical difference between allowing a State "to protect her citizens from the operation of federal statutes" (which is what *Mellon* prohibits) and allowing a State to assert its rights under federal law (which it has standing to do). Massachusetts does not here dispute that the Clean Air Act *applies* to its citizens; it rather seeks to assert its rights under the Act. See also *Nebraska* v. *Wyoming*, 515 U. S. 1, 20 (1995) (holding that Wyoming had standing to bring a cross-claim against the United States to vindicate its "'*quasi-sovereign* interests which are 'independent of and behind the titles of its citizens, in all the earth and air within its domain'" (quoting *Tennessee Copper*, 206 U. S., at 237)).

With that in mind, it is clear that petitioners' submissions as they pertain to Massachusetts have satisfied the most demanding standards of the adversarial process. EPA's steadfast refusal to regulate greenhouse gas emissions presents a risk of harm to Massachusetts that is both "actual" and "imminent." *Lujan*, 504 U. S., at 560 (internal quotation marks omitted). There is, moreover, a "substantial likelihood that the judicial relief requested" will prompt EPA to take steps to reduce that risk. *Duke Power Co.* v. *Carolina Environmental Study Group, Inc.*, 438 U. S. 59, 79 (1978).

The Injury

The harms associated with climate change are serious and well recognized. Indeed, the NRC Report itself—which EPA regards as an "objective and independent assessment of the relevant science," 68 Fed. Reg. 52930—identifies a number of environmental changes that have already inflicted significant harms, including "the global retreat of mountain glaciers, reduction in snow-cover extent, the earlier spring melting of rivers and lakes, [and] the accelerated rate of rise of sea levels during the 20th century relative to the past few thousand years . . . ." NRC Report 16.

Petitioners allege that this only hints at the environmental damage yet to come. According to the climate scientist Michael MacCracken, "qualified scientific experts involved in climate change research" have reached a "strong consensus" that global warming threatens (among other things) a precipitate rise in sea levels by the end of the century, MacCracken Decl. ¶15, Stdg. App. 207, "severe and irreversible changes to natural ecosystems," *id.*, ¶5(d), at 209, a "significant reduction in water storage in winter snowpack in mountainous regions with direct and important economic consequences," *ibid.*, and an increase in the spread of disease, *id.*, ¶28, at 218–219. He also

observes that rising ocean temperatures may contribute to the ferocity of hurricanes. *Id.*, ¶¶23–25, at 216–217.[18]

That these climate-change risks are "widely shared" does not minimize Massachusetts' interest in the outcome of this litigation. See *Federal Election Comm'n* v. *Akins*, 524 U. S. 11, 24 (1998) ("[W]here a harm is concrete, though widely shared, the Court has found 'injury in fact'"). According to petitioners' unchallenged affidavits, global sea levels rose somewhere between 10 and 20 centimeters over the 20th century as a result of global warming. MacCracken Decl. ¶5(c), Stdg. App. 208. These rising seas have already begun to swallow Massachusetts' coastal land. *Id.*, at 196 (declaration of Paul H. Kirshen ¶5), 216 (MacCracken Decl. ¶23). Because the Commonwealth "owns a substantial portion of the state's coastal property," *id.*, at 171 (declaration of Karst R. Hoogeboom ¶4),[19] it has alleged a particularized injury in its capacity

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[18] In this regard, MacCracken's 2004 affidavit—drafted more than a year in advance of Hurricane Katrina—was eerily prescient. Immediately after discussing the "particular concern" that climate change might cause an "increase in the wind speed and peak rate of precipitation of major tropical cyclones (i.e., hurricanes and typhoons)," MacCracken noted that "[s]oil compaction, sea level rise and recurrent storms are destroying approximately 20–30 square miles of Louisiana wetlands each year. These wetlands serve as a 'shock absorber' for storm surges that could inundate New Orleans, significantly enhancing the risk to a major urban population." ¶¶24–25, Stdg. App. 217.

[19] "For example, the [Massachusetts Department of Conservation and Recreation] owns, operates and maintains approximately 53 coastal state parks, beaches, reservations, and wildlife sanctuaries. [It] also owns, operates and maintains sporting and recreational facilities in coastal areas, including numerous pools, skating rinks, playgrounds, playing fields, former coastal fortifications, public stages, museums, bike trails, tennis courts, boathouses and boat ramps and landings. Associated with these coastal properties and facilities is a significant amount of infrastructure, which the Commonwealth also owns, operates and maintains, including roads, parkways, stormwater pump stations, pier[s], sea wal[l] revetments and dams." Hoogeboom Decl. ¶4, at 171.

as a landowner. The severity of that injury will only increase over the course of the next century: If sea levels continue to rise as predicted, one Massachusetts official believes that a significant fraction of coastal property will be "either permanently lost through inundation or temporarily lost through periodic storm surge and flooding events." *Id.*, ¶6, at 172.[20] Remediation costs alone, petitioners allege, could run well into the hundreds of millions of dollars. *Id.*, ¶7, at 172; see also Kirshen Decl. ¶12, at 198.[21]

Causation

EPA does not dispute the existence of a causal connection between man-made greenhouse gas emissions and global warming. At a minimum, therefore, EPA's refusal to regulate such emissions "contributes" to Massachusetts' injuries.

EPA nevertheless maintains that its decision not to regulate greenhouse gas emissions from new motor vehicles contributes so insignificantly to petitioners' injuries that the agency cannot be haled into federal court to answer for them. For the same reason, EPA does not believe

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[20] See also *id.*, at 179 (declaration of Christian Jacqz) (discussing possible loss of roughly 14 acres of land per miles of coastline by 2100); Kirshen Decl. ¶10, at 198 (alleging that "[w]hen such a rise in sea level occurs, a 10-year flood will have the magnitude of the present 100-year flood and a 100-year flood will have the magnitude of the present 500-year flood").

[21] In dissent, THE CHIEF JUSTICE dismisses petitioners' submissions as "conclusory," presumably because they do not quantify Massachusetts' land loss with the exactitude he would prefer. *Post*, at 8. He therefore asserts that the Commonwealth's injury is "conjectur[al]." See *ibid.* Yet the likelihood that Massachusetts' coastline will recede has nothing to do with whether petitioners have determined the precise metes and bounds of their soon-to-be-flooded land. Petitioners maintain that the seas are rising and will continue to rise, and have alleged that such a rise will lead to the loss of Massachusetts' sovereign territory. No one, save perhaps the dissenters, disputes those allegations. Our cases require nothing more.

that any realistic possibility exists that the relief petitioners seek would mitigate global climate change and remedy their injuries. That is especially so because predicted increases in greenhouse gas emissions from developing nations, particularly China and India, are likely to offset any marginal domestic decrease.

But EPA overstates its case. Its argument rests on the erroneous assumption that a small incremental step, because it is incremental, can never be attacked in a federal judicial forum. Yet accepting that premise would doom most challenges to regulatory action. Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop. See *Williamson* v. *Lee Optical of Okla., Inc.*, 348 U. S. 483, 489 (1955) ("[A] reform may take one step at a time, addressing itself to the phase of the problem which seems most acute to the legislative mind"). They instead whittle away at them over time, refining their preferred approach as circumstances change and as they develop a more-nuanced understanding of how best to proceed. Cf. *SEC* v. *Chenery Corp.*, 332 U. S. 194, 202 (1947) ("Some principles must await their own development, while others must be adjusted to meet particular, unforeseeable situations"). That a first step might be tentative does not by itself support the notion that federal courts lack jurisdiction to determine whether that step conforms to law.

And reducing domestic automobile emissions is hardly a tentative step. Even leaving aside the other greenhouse gases, the United States transportation sector emits an enormous quantity of carbon dioxide into the atmosphere—according to the MacCracken affidavit, more than 1.7 billion metric tons in 1999 alone. ¶30, Stdg. App. 219. That accounts for more than 6% of worldwide carbon dioxide emissions. *Id.*, at 232 (Oppenheimer Decl. ¶3); see also MacCracken Decl. ¶31, at 220. To put this in perspective: Considering just emissions from the transporta-

tion sector, which represent less than one-third of this country's total carbon dioxide emissions, the United States would still rank as the third-largest emitter of carbon dioxide in the world, outpaced only by the European Union and China.[22] Judged by any standard, U. S. motor-vehicle emissions make a meaningful contribution to greenhouse gas concentrations and hence, according to petitioners, to global warming.

The Remedy

While it may be true that regulating motor-vehicle emissions will not by itself *reverse* global warming, it by no means follows that we lack jurisdiction to decide whether EPA has a duty to take steps to *slow* or *reduce* it. See also *Larson* v. *Valente*, 456 U. S. 228, 244, n. 15 (1982) ("[A] plaintiff satisfies the redressability requirement when he shows that a favorable decision will relieve a discrete injury to himself. He need not show that a favorable decision will relieve his *every* injury"). Because of the enormity of the potential consequences associated with man-made climate change, the fact that the effectiveness of a remedy might be delayed during the (relatively short) time it takes for a new motor-vehicle fleet to replace an older one is essentially irrelevant.[23] Nor is it dispositive

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[22] See UNFCCC, National Greenhouse Gas Inventory Data for the Period 1990–2004 and Status of Reporting 14 (2006) (hereinafter Inventory Data) (reflecting emissions from Annex I countries); UNFCCC, Sixth Compilation and Synthesis of Initial National Communications from Parties not Included in Annex I to the Convention 7–8 (2005) (reflecting emissions from non-Annex I countries); see also Dept. of Energy, Energy Information Admin., International Energy Annual 2004, H.1co2 World Carbon Dioxide Emissions from the Consumption and Flaring of Fossil Fuels, 1980–2004 (Table), http://www.eia.doe.gov/pub/international/iealf/tableh1co2.xls.

[23] See also *Mountain States Legal Foundation* v. *Glickman*, 92 F. 3d 1228, 1234 (CADC 1996) ("The more drastic the injury that government action makes more likely, the lesser the increment in probability to establish standing"); *Village of Elk Grove Village* v. *Evans*, 997 F. 2d 328, 329 (CA7 1993) ("[E]ven a small probability of injury is sufficient

that developing countries such as China and India are poised to increase greenhouse gas emissions substantially over the next century: A reduction in domestic emissions would slow the pace of global emissions increases, no matter what happens elsewhere.

We moreover attach considerable significance to EPA's "agree[ment] with the President that 'we must address the issue of global climate change,'" 68 Fed. Reg. 52929 (quoting remarks announcing Clear Skies and Global Climate Initiatives, 2002 Public Papers of George W. Bush, Vol. 1, Feb. 14, p. 227 (2004)), and to EPA's ardent support for various voluntary emission-reduction programs, 68 Fed. Reg. 52932. As Judge Tatel observed in dissent below, "EPA would presumably not bother with such efforts if it thought emissions reductions would have no discernable impact on future global warming." 415 F. 3d, at 66.

In sum—at least according to petitioners' uncontested affidavits—the rise in sea levels associated with global warming has already harmed and will continue to harm Massachusetts. The risk of catastrophic harm, though remote, is nevertheless real. That risk would be reduced to some extent if petitioners received the relief they seek. We therefore hold that petitioners have standing to challenge the EPA's denial of their rulemaking petition.[24]

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to create a case or controversy—to take a suit out of the category of the hypothetical—provided of course that the relief sought would, if granted, reduce the probability").

[24] In his dissent, THE CHIEF JUSTICE expresses disagreement with the Court's holding in *United States* v. *Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U. S. 669, 687–688 (1973). He does not, however, disavow this portion of Justice Stewart's opinion for the Court:

"Unlike the specific and geographically limited federal action of which the petitioner complained in *Sierra Club* [v. *Morton*, 405 U. S. 727 (1972)], the challenged agency action in this case is applicable to substantially all of the Nation's railroads, and thus allegedly has an adverse environmental impact on all the natural resources of the

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The scope of our review of the merits of the statutory issues is narrow. As we have repeated time and again, an agency has broad discretion to choose how best to marshal its limited resources and personnel to carry out its delegated responsibilities. See *Chevron U. S. A. Inc.* v. *Natural Resources Defense Council, Inc.*, 467 U. S. 837, 842–845 (1984). That discretion is at its height when the agency decides not to bring an enforcement action. Therefore, in *Heckler* v. *Chaney*, 470 U. S. 821 (1985), we held that an agency's refusal to initiate enforcement proceedings is not ordinarily subject to judicial review. Some debate remains, however, as to the rigor with which we review an agency's denial of a petition for rulemaking.

There are key differences between a denial of a petition for rulemaking and an agency's decision not to initiate an enforcement action. See *American Horse Protection Assn., Inc.* v. *Lyng*, 812 F. 2d 1, 3–4 (CADC 1987). In contrast to nonenforcement decisions, agency refusals to initiate rulemaking "are less frequent, more apt to involve legal as opposed to factual analysis, and subject to special formali-

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country. Rather than a limited group of persons who used a picturesque valley in California, all persons who utilize the scenic resources of the country, and indeed all who breathe its air, could claim harm similar to that alleged by the environmental groups here. But we have already made it clear that standing is not to be denied simply because many people suffer the same injury. Indeed some of the cases on which we relied in *Sierra Club* demonstrated the patent fact that persons across the Nation could be adversely affected by major governmental actions. *To deny standing to persons who are in fact injured simply because many others are also injured, would mean that the most injurious and widespread Government actions could be questioned by nobody.* We cannot accept that conclusion." *Ibid.* (citations omitted and emphasis added).

It is moreover quite wrong to analogize the legal claim advanced by Massachusetts and the other public and private entities who challenge EPA's parsimonious construction of the Clean Air Act to a mere "lawyer's game." See *post*, at 14.

ties, including a public explanation." *Id.*, at 4; see also 5 U. S. C. §555(e). They moreover arise out of denials of petitions for rulemaking which (at least in the circumstances here) the affected party had an undoubted procedural right to file in the first instance. Refusals to promulgate rules are thus susceptible to judicial review, though such review is "extremely limited" and "highly deferential." *National Customs Brokers & Forwarders Assn of America, Inc.* v. *United States*, 883 F. 2d 93, 96 (CADC 1989).

EPA concluded in its denial of the petition for rulemaking that it lacked authority under 42 U. S. C. §7521(a)(1) to regulate new vehicle emissions because carbon dioxide is not an "air pollutant" as that term is defined in §7602. In the alternative, it concluded that even if it possessed authority, it would decline to do so because regulation would conflict with other administration priorities. As discussed earlier, the Clean Air Act expressly permits review of such an action. §7607(b)(1). We therefore "may reverse any such action found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." §7607(d)(9).

VI

On the merits, the first question is whether §202(a)(1) of the Clean Air Act authorizes EPA to regulate greenhouse gas emissions from new motor vehicles in the event that it forms a "judgment" that such emissions contribute to climate change. We have little trouble concluding that it does. In relevant part, §202(a)(1) provides that EPA "shall by regulation prescribe . . . standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which in [the Administrator's] judgment cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U. S. C. §7521(a)(1).

Because EPA believes that Congress did not intend it to regulate substances that contribute to climate change, the agency maintains that carbon dioxide is not an "air pollutant" within the meaning of the provision.

The statutory text forecloses EPA's reading. The Clean Air Act's sweeping definition of "air pollutant" includes "*any* air pollution agent or combination of such agents, including *any* physical, chemical . . . substance or matter which is emitted into or otherwise enters the ambient air . . . ." §7602(g) (emphasis added). On its face, the definition embraces all airborne compounds of whatever stripe, and underscores that intent through the repeated use of the word "any."[25] Carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons are without a doubt "physical [and] chemical . . . substance[s] which [are] emitted into . . . the ambient air." The statute is unambiguous.[26]

Rather than relying on statutory text, EPA invokes

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[25] See *Department of Housing and Urban Development* v. *Rucker*, 535 U. S. 125, 131 (2002) (observing that "'any' . . . has an expansive meaning, that is, one or some indiscriminately of whatever kind" (some internal quotation marks omitted)).

[26] In dissent, JUSTICE SCALIA maintains that because greenhouse gases permeate the world's atmosphere rather than a limited area near the earth's surface, EPA's exclusion of greenhouse gases from the category of air pollution "agent[s]" is entitled to deference under *Chevron U. S. A. Inc.* v. *Natural Resources Defense Council, Inc.* 467 U. S. 837 (1984). See *post*, at 11–13. EPA's distinction, however, finds no support in the text of the statute, which uses the phrase "the ambient air" without distinguishing between atmospheric layers. Moreover, it is a plainly unreasonable reading of a sweeping statutory provision designed to capture "*any* physical, chemical . . . substance or matter which is emitted into or otherwise enters the ambient air." 42 U. S. C. §7602(g). JUSTICE SCALIA does not (and cannot) explain why Congress would define "air pollutant" so carefully and so broadly, yet confer on EPA the authority to narrow that definition whenever expedient by asserting that a particular substance is not an "agent." At any rate, no party to this dispute contests that greenhouse gases both "ente[r] the ambient air" and tend to warm the atmosphere. They are therefore unquestionably "agent[s]" of air pollution.

postenactment congressional actions and deliberations it views as tantamount to a congressional command to refrain from regulating greenhouse gas emissions. Even if such postenactment legislative history could shed light on the meaning of an otherwise-unambiguous statute, EPA never identifies any action remotely suggesting that Congress meant to curtail its power to treat greenhouse gases as air pollutants. That subsequent Congresses have eschewed enacting binding emissions limitations to combat global warming tells us nothing about what Congress meant when it amended §202(a)(1) in 1970 and 1977.[27] And unlike EPA, we have no difficulty reconciling Congress' various efforts to promote interagency collaboration and research to better understand climate change[28] with the agency's pre-existing mandate to regulate "any air pollutant" that may endanger the public welfare. See 42 U. S. C. §7601(a)(1). Collaboration and research do not

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[27] See *United States* v. *Price*, 361 U. S. 304, 313 (1960) (holding that "the views of a subsequent Congress form a hazardous basis for inferring the intent of an earlier one"); see also *Cobell* v. *Norton*, 428 F. 3d 1070, 1075 (CADC 2005) ("[P]ost-enactment legislative history is not only oxymoronic but inherently entitled to little weight").

[28] See, *e.g.*, National Climate Program Act, §5, 92 Stat. 601, 15 U. S. C. §2901 *et seq.* (calling for the establishment of a National Climate Program and for additional climate change research); Global Climate Protection Act of 1987, §1103, 101 Stat. 1408–1409 (directing EPA and the Secretary of State to "jointly" develop a "coordinated national policy on global climate change" and report to Congress); Global Change Research Act of 1990, Tit. I, 104 Stat. 3097, 15 U. S. C. §§2921–2938 (establishing for the "development and coordination of a comprehensive and integrated United States research program" to aid in "understand[ing] . . . human-induced and natural processes of climate change"); Global Climate Change Prevention Act of 1990, 104 Stat. 1058, 7 U. S. C. §6701 *et seq.* (directing the Dept. of Agriculture to study the effects of climate change on forestry and agriculture); Energy Policy Act of 1992, §§1601–1609, 106 Stat. 2999, 42 U. S. C. §§13381–13388 (requiring the Secretary of Energy to report on information pertaining to climate change).

conflict with any thoughtful regulatory effort; they complement it.[29]

EPA's reliance on *Brown & Williamson Tobacco Corp.*, 529 U. S. 120, is similarly misplaced. In holding that tobacco products are not "drugs" or "devices" subject to Food and Drug Administration (FDA) regulation pursuant to the Food, Drug and Cosmetic Act (FDCA), see 529 U. S., at 133, we found critical at least two considerations that have no counterpart in this case.

First, we thought it unlikely that Congress meant to ban tobacco products, which the FDCA would have required had such products been classified as "drugs" or "devices." *Id.*, at 135–137. Here, in contrast, EPA jurisdiction would lead to no such extreme measures. EPA would only *regulate* emissions, and even then, it would have to delay any action "to permit the development and application of the requisite technology, giving appropriate consideration to the cost of compliance," §7521(a)(2). However much a ban on tobacco products clashed with the "common sense" intuition that Congress never meant to remove those products from circulation, *Brown & Williamson*, 529 U. S., at 133, there is nothing counterintuitive to the notion that EPA can curtail the emission of substances that are putting the global climate out of kilter.

Second, in *Brown & Williamson* we pointed to an unbroken series of congressional enactments that made sense only if adopted "against the backdrop of the FDA's consistent and repeated statements that it lacked authority under the FDCA to regulate tobacco." *Id.*, at 144. We can point to no such enactments here: EPA has not identified any congressional action that conflicts in any way with the regula-

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[29] We are moreover puzzled by EPA's roundabout argument that because later Congresses chose to address stratospheric ozone pollution in a specific legislative provision, it somehow follows that greenhouse gases cannot be air pollutants within the meaning of the Clean Air Act.

tion of greenhouse gases from new motor vehicles. Even if it had, Congress could not have acted against a regulatory "backdrop" of disclaimers of regulatory authority. Prior to the order that provoked this litigation, EPA had never disavowed the authority to regulate greenhouse gases, and in 1998 it in fact affirmed that it *had* such authority. See App. 54 (Cannon memorandum). There is no reason, much less a compelling reason, to accept EPA's invitation to read ambiguity into a clear statute.

EPA finally argues that it cannot regulate carbon dioxide emissions from motor vehicles because doing so would require it to tighten mileage standards, a job (according to EPA) that Congress has assigned to DOT. See 68 Fed. Reg. 52929. But that DOT sets mileage standards in no way licenses EPA to shirk its environmental responsibilities. EPA has been charged with protecting the public's "health" and "welfare," 42 U. S. C. §7521(a)(1), a statutory obligation wholly independent of DOT's mandate to promote energy efficiency. See Energy Policy and Conservation Act, §2(5), 89 Stat. 874, 42 U. S. C. §6201(5). The two obligations may overlap, but there is no reason to think the two agencies cannot both administer their obligations and yet avoid inconsistency.

While the Congresses that drafted §202(a)(1) might not have appreciated the possibility that burning fossil fuels could lead to global warming, they did understand that without regulatory flexibility, changing circumstances and scientific developments would soon render the Clean Air Act obsolete. The broad language of §202(a)(1) reflects an intentional effort to confer the flexibility necessary to forestall such obsolescence. See *Pennsylvania Dept. of Corrections* v. *Yeskey*, 524 U. S. 206, 212 (1998) ("[T]he fact that a statute can be applied in situations not expressly anticipated by Congress does not demonstrate ambiguity. It demonstrates breadth" (internal quotation marks omitted)). Because greenhouse gases fit well within

the Clean Air Act's capacious definition of "air pollutant," we hold that EPA has the statutory authority to regulate the emission of such gases from new motor vehicles.

VII

The alternative basis for EPA's decision—that even if it does have statutory authority to regulate greenhouse gases, it would be unwise to do so at this time—rests on reasoning divorced from the statutory text. While the statute does condition the exercise of EPA's authority on its formation of a "judgment," 42 U. S. C. §7521(a)(1), that judgment must relate to whether an air pollutant "cause[s], or contribute[s] to, air pollution which may reasonably be anticipated to endanger public health or welfare," *ibid.* Put another way, the use of the word "judgment" is not a roving license to ignore the statutory text. It is but a direction to exercise discretion within defined statutory limits.

If EPA makes a finding of endangerment, the Clean Air Act requires the agency to regulate emissions of the deleterious pollutant from new motor vehicles. *Ibid.* (stating that "[EPA] shall by regulation prescribe . . . standards applicable to the emission of any air pollutant from any class of new motor vehicles"). EPA no doubt has significant latitude as to the manner, timing, content, and coordination of its regulations with those of other agencies. But once EPA has responded to a petition for rulemaking, its reasons for action or inaction must conform to the authorizing statute. Under the clear terms of the Clean Air Act, EPA can avoid taking further action only if it determines that greenhouse gases do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do. *Ibid.* To the extent that this constrains agency discretion to pursue other priorities of the Administrator or the President, this is the congressional design.

EPA has refused to comply with this clear statutory command. Instead, it has offered a laundry list of reasons not to regulate. For example, EPA said that a number of voluntary executive branch programs already provide an effective response to the threat of global warming, 68 Fed. Reg. 52932, that regulating greenhouse gases might impair the President's ability to negotiate with "key developing nations" to reduce emissions, *id.*, at 52931, and that curtailing motor-vehicle emissions would reflect "an inefficient, piecemeal approach to address the climate change issue," *ibid.*

Although we have neither the expertise nor the authority to evaluate these policy judgments, it is evident they have nothing to do with whether greenhouse gas emissions contribute to climate change. Still less do they amount to a reasoned justification for declining to form a scientific judgment. In particular, while the President has broad authority in foreign affairs, that authority does not extend to the refusal to execute domestic laws. In the Global Climate Protection Act of 1987, Congress authorized the State Department—not EPA—to formulate United States foreign policy with reference to environmental matters relating to climate. See §1103(c), 101 Stat. 1409. EPA has made no showing that it issued the ruling in question here after consultation with the State Department. Congress did direct EPA to consult with other agencies in the formulation of its policies and rules, but the State Department is absent from that list. §1103(b).

Nor can EPA avoid its statutory obligation by noting the uncertainty surrounding various features of climate change and concluding that it would therefore be better not to regulate at this time. See 68 Fed. Reg. 52930–52931. If the scientific uncertainty is so profound that it precludes EPA from making a reasoned judgment as to whether greenhouse gases contribute to global warming, EPA must say so. That EPA would prefer not to regulate greenhouse

gases because of some residual uncertainty—which, contrary to JUSTICE SCALIA's apparent belief, *post*, at 5–8, is in fact all that it said, see 68 Fed. Reg. 52929 ("We do not believe . . . that it would be either effective or appropriate for EPA *to establish [greenhouse gas] standards for motor vehicles* at this time" (emphasis added))—is irrelevant. The statutory question is whether sufficient information exists to make an endangerment finding.

In short, EPA has offered no reasoned explanation for its refusal to decide whether greenhouse gases cause or contribute to climate change. Its action was therefore "arbitrary, capricious, . . . or otherwise not in accordance with law." 42 U. S. C. §7607(d)(9)(A). We need not and do not reach the question whether on remand EPA must make an endangerment finding, or whether policy concerns can inform-EPA's actions in the event that it makes such a finding. Cf. *Chevron U. S. A. Inc.* v. *Natural Resources Defense Council, Inc.*, 467 U. S. 837, 843–844 (1984). We hold only that EPA must ground its reasons for action or inaction in the statute.

VIII

The judgment of the Court of Appeals is reversed, and the case is remanded for further proceedings consistent with this opinion.

It is so ordered.

SUPREME COURT OF THE UNITED STATES

No. 05–1120

MASSACHUSETTS, ET AL., PETITIONERS *v.* ENVIRONMENTAL PROTECTION AGENCY ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

[April 2, 2007]

CHIEF JUSTICE ROBERTS, with whom JUSTICE SCALIA, JUSTICE THOMAS, and JUSTICE ALITO join, dissenting.

Global warming may be a "crisis," even "the most pressing environmental problem of our time." Pet. for Cert. 26, 22. Indeed, it may ultimately affect nearly everyone on the planet in some potentially adverse way, and it may be that governments have done too little to address it. It is not a problem, however, that has escaped the attention of policymakers in the Executive and Legislative Branches of our Government, who continue to consider regulatory, legislative, and treaty-based means of addressing global climate change.

Apparently dissatisfied with the pace of progress on this issue in the elected branches, petitioners have come to the courts claiming broad-ranging injury, and attempting to tie that injury to the Government's alleged failure to comply with a rather narrow statutory provision. I would reject these challenges as nonjusticiable. Such a conclusion involves no judgment on whether global warming exists, what causes it, or the extent of the problem. Nor does it render petitioners without recourse. This Court's standing jurisprudence simply recognizes that redress of grievances of the sort at issue here "is the function of Congress and the Chief Executive," not the federal courts. *Lujan* v. *Defenders of Wildlife*, 504 U. S. 555, 576 (1992). I

would vacate the judgment below and remand for dismissal of the petitions for review.

I

Article III, §2, of the Constitution limits the federal judicial power to the adjudication of "Cases" and "Controversies." "If a dispute is not a proper case or controversy, the courts have no business deciding it, or expounding the law in the course of doing so." *DaimlerChrysler Corp.* v. *Cuno*, 547 U. S. ___, ___ (2006) (slip op., at 5). "Standing to sue is part of the common understanding of what it takes to make a justiciable case," *Steel Co.* v. *Citizens for Better Environment*, 523 U. S. 83, 102 (1998), and has been described as "an essential and unchanging part of the case-or-controversy requirement of Article III," *Defenders of Wildlife*, *supra*, at 560.

Our modern framework for addressing standing is familiar: "A plaintiff must allege personal injury fairly traceable to the defendant's allegedly unlawful conduct and likely to be redressed by the requested relief." *DaimlerChrysler*, *supra*, at ___ (slip op., at 6) (quoting *Allen* v. *Wright*, 468 U. S. 737, 751 (1984) (internal quotation marks omitted)). Applying that standard here, petitioners bear the burden of alleging an injury that is fairly traceable to the Environmental Protection Agency's failure to promulgate new motor vehicle greenhouse gas emission standards, and that is likely to be redressed by the prospective issuance of such standards.

Before determining whether petitioners can meet this familiar test, however, the Court changes the rules. It asserts that "States are not normal litigants for the purposes of invoking federal jurisdiction," and that given "Massachusetts' stake in protecting its quasi-sovereign interests, the Commonwealth is entitled to *special solicitude* in our standing analysis." *Ante*, at 15, 17 (emphasis added).

Relaxing Article III standing requirements because asserted injuries are pressed by a State, however, has no basis in our jurisprudence, and support for any such "special solicitude" is conspicuously absent from the Court's opinion. The general judicial review provision cited by the Court, 42 U. S. C. §7607(b)(1), affords States no special rights or status. The Court states that "Congress has ordered EPA to protect Massachusetts (among others)" through the statutory provision at issue, §7521(a)(1), and that "Congress has . . . recognized a concomitant procedural right to challenge the rejection of its rulemaking petition as arbitrary and capricious." *Ante*, at 16. The reader might think from this unfortunate phrasing that Congress said something about the rights of States in this particular provision of the statute. Congress knows how to do that when it wants to, see, *e.g.*, §7426(b) (affording States the right to petition EPA to directly regulate certain sources of pollution), but it has done nothing of the sort here. Under the law on which petitioners rely, Congress treated public and private litigants exactly the same.

Nor does the case law cited by the Court provide any support for the notion that Article III somehow implicitly treats public and private litigants differently. The Court has to go back a full century in an attempt to justify its novel standing rule, but even there it comes up short. The Court's analysis hinges on *Georgia* v. *Tennessee Copper Co.*, 206 U. S. 230 (1907)—a case that did indeed draw a distinction between a State and private litigants, but solely with respect to available remedies. The case had nothing to do with Article III standing.

In *Tennessee Copper*, the State of Georgia sought to enjoin copper companies in neighboring Tennessee from discharging pollutants that were inflicting "a wholesale destruction of forests, orchards and crops" in bordering Georgia counties. *Id.*, at 236. Although the State owned very little of the territory allegedly affected, the Court

reasoned that Georgia—in its capacity as a "*quasi*-sovereign"—"has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain." *Id.*, at 237. The Court explained that while "[t]he very elements that would be relied upon in a suit between fellow-citizens as a ground for equitable relief [were] wanting," a State "is not lightly to be required to give up *quasi*-sovereign rights for pay." *Ibid.* Thus while a complaining private litigant would have to make do with a *legal* remedy—one "for pay"—the State was entitled to *equitable* relief. See *id.*, at 237–238.

In contrast to the present case, there was no question in *Tennessee Copper* about Article III injury. See *id.*, at 238–239. There was certainly no suggestion that the State could show standing where the private parties could not; there was no dispute, after all, that the private landowners had "an action at law." *Id.*, at 238. *Tennessee Copper* has since stood for nothing more than a State's right, in an original jurisdiction action, to sue in a representative capacity as *parens patriae*. See, *e.g.*, *Maryland* v. *Louisiana*, 451 U. S. 725, 737 (1981). Nothing about a State's ability to sue in that capacity dilutes the bedrock requirement of showing injury, causation, and redressability to satisfy Article III.

A claim of *parens patriae* standing is distinct from an allegation of direct injury. See *Wyoming* v. *Oklahoma*, 502 U. S. 437, 448–449, 451 (1992). Far from being a substitute for Article III injury, *parens patriae* actions raise an additional hurdle for a state litigant: the articulation of a "quasi-sovereign interest" "*apart* from the interests of particular private parties." *Alfred L. Snapp & Son, Inc.* v. *Puerto Rico ex rel. Barez*, 458 U. S. 592, 607 (1982) (emphasis added) (cited *ante*, at 16). Just as an association suing on behalf of its members must show not only that it represents the members but that at least one satisfies Article III requirements, so too a State asserting quasi-

sovereign interests as *parens patriae* must still show that its citizens satisfy Article III. Focusing on Massachusetts's interests as quasi-sovereign makes the required showing here harder, not easier. The Court, in effect, takes what has always been regarded as a *necessary* condition for *parens patriae* standing—a quasi-sovereign interest—and converts it into a *sufficient* showing for purposes of Article III.

What is more, the Court's reasoning falters on its own terms. The Court asserts that Massachusetts is entitled to "special solicitude" due to its "quasi-sovereign interests," *ante*, at 17, but then applies our Article III standing test to the asserted injury of the State's loss of coastal property. See *ante*, at 19 (concluding that Massachusetts "has alleged a particularized injury *in its capacity as a landowner*" (emphasis added)). In the context of *parens patriae* standing, however, we have characterized state ownership of land as a "nonsovereign interes[t]" because a State "is likely to have the same interests as other similarly situated proprietors." *Alfred L. Snapp & Son*, *supra*, at 601.

On top of everything else, the Court overlooks the fact that our cases cast significant doubt on a State's standing to assert a quasi-sovereign interest—as opposed to a direct injury—against the Federal Government. As a general rule, we have held that while a State might assert a quasi-sovereign right as *parens patriae* "for the protection of its citizens, it is no part of its duty or power to enforce their rights in respect of their relations with the Federal Government. In that field it is the United States, and not the State, which represents them." *Massachusetts* v. *Mellon*, 262 U. S. 447, 485–486 (1923) (citation omitted); see also *Alfred L. Snapp & Son*, *supra*, at 610, n. 16.

All of this presumably explains why petitioners never cited *Tennessee Copper* in their briefs before this Court or the D. C. Circuit. It presumably explains why not one of

the legion of *amici* supporting petitioners ever cited the case. And it presumably explains why not one of the three judges writing below ever cited the case either. Given that one purpose of the standing requirement is "'to assure that concrete adverseness which sharpens the presentation of issues upon which the court so largely depends for illumination,'" *ante*, at 13–14 (quoting *Baker* v. *Carr*, 369 U. S. 186, 204 (1962)), it is ironic that the Court today adopts a new theory of Article III standing for States without the benefit of briefing or argument on the point.[1]

II

It is not at all clear how the Court's "special solicitude" for Massachusetts plays out in the standing analysis, except as an implicit concession that petitioners cannot establish standing on traditional terms. But the status of Massachusetts as a State cannot compensate for petitioners' failure to demonstrate injury in fact, causation, and redressability.

When the Court actually applies the three-part test, it focuses, as did the dissent below, see 415 F. 3d 50, 64

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[1]The Court seems to think we do not recognize that *Tennessee Copper* is a case about *parens patriae* standing, *ante*, at 17, n. 17, but we have no doubt about that. The point is that nothing in our cases (or Hart & Wechsler) suggests that the prudential requirements for *parens patriae* standing, see *Republic of Venezuela* v. *Philip Morris Inc.*, 287 F. 3d 192, 199, n. (CADC 2002) (observing that "*parens patriae* is merely a species of prudential standing" (internal quotation marks omitted)), can somehow substitute for, or alter the content of, the "irreducible constitutional minimum" requirements of injury in fact, causation, and redressability under Article III. *Lujan* v. *Defenders of Wildlife*, 504 U. S. 555, 560 (1992).

Georgia v. *Pennsylvania R. Co.*, 324 U. S. 439 (1945), is not to the contrary. As the caption makes clear enough, the fact that a State may assert rights under a federal statute as *parens patriae* in no way refutes our clear ruling that "[a] State does not have standing as *parens patriae* to bring an action against the Federal Government." *Alfred L. Snapp & Son, Inc.* v. *Puerto Rico ex rel. Barez*, 458 U. S. 592, 610, n. 16 (1982).

(CADC 2005) (opinion of Tatel, J.), on the State's asserted loss of coastal land as the injury in fact. If petitioners rely on loss of land as the Article III injury, however, they must ground the rest of the standing analysis in that specific injury. That alleged injury must be "concrete and particularized," *Defenders of Wildlife*, 504 U. S., at 560, and "distinct and palpable," *Allen*, 468 U. S., at 751 (internal quotation marks omitted). Central to this concept of "particularized" injury is the requirement that a plaintiff be affected in a "personal and individual way," *Defenders of Wildlife*, 504 U. S., at 560, n. 1, and seek relief that "directly and tangibly benefits him" in a manner distinct from its impact on "the public at large," *id.*, at 573–574. Without "particularized injury, there can be no confidence of 'a real need to exercise the power of judicial review' or that relief can be framed 'no broader than required by the precise facts to which the court's ruling would be applied.'" *Warth* v. *Seldin*, 422 U. S. 490, 508 (1975) (quoting *Schlesinger* v. *Reservists Comm. to Stop the War*, 418 U. S. 208, 221–222 (1974)).

The very concept of global warming seems inconsistent with this particularization requirement. Global warming is a phenomenon "harmful to humanity at large," 415 F. 3d, at 60 (Sentelle, J., dissenting in part and concurring in judgment), and the redress petitioners seek is focused no more on them than on the public generally—it is literally to change the atmosphere around the world.

If petitioners' particularized injury is loss of coastal land, it is also that injury that must be "actual or imminent, not conjectural or hypothetical," *Defenders of Wildlife, supra*, at 560 (internal quotation marks omitted), "real and immediate," *Los Angeles* v. *Lyons*, 461 U. S. 95, 102 (1983) (internal quotation marks omitted), and "certainly impending," *Whitmore* v. *Arkansas*, 495 U. S. 149, 158 (1990) (internal quotation marks omitted).

As to "actual" injury, the Court observes that "global sea

levels rose somewhere between 10 and 20 centimeters over the 20th century as a result of global warming" and that "[t]hese rising seas have already begun to swallow Massachusetts' coastal land." *Ante*, at 19. But none of petitioners' declarations supports that connection. One declaration states that "a rise in sea level due to climate change is occurring on the coast of Massachusetts, in the metropolitan Boston area," but there is no elaboration. Petitioners' Standing Appendix in No. 03–1361, etc. (CADC), p. 196 (Stdg. App.). And the declarant goes on to identify a "significan[t]" *non*-global-warming cause of Boston's rising sea level: land subsidence. *Id.*, at 197; see also *id.*, at 216. Thus, aside from a single conclusory statement, there is nothing in petitioners' 43 standing declarations and accompanying exhibits to support an inference of actual loss of Massachusetts coastal land from 20th century global sea level increases. It is pure conjecture.

The Court's attempts to identify "imminent" or "certainly impending" loss of Massachusetts coastal land fares no better. See *ante*, at 19–20. One of petitioners' declarants predicts global warming will cause sea level to rise by 20 to 70 centimeters *by the year 2100*. Stdg. App. 216. Another uses a computer modeling program to map the Commonwealth's coastal land and its current elevation, and calculates that the high-end estimate of sea level rise would result in the loss of significant state-owned coastal land. *Id.*, at 179. But the computer modeling program has a conceded average error of about 30 centimeters and a maximum observed error of 70 centimeters. *Id.*, at 177–178. As an initial matter, if it is possible that the model underrepresents the elevation of coastal land to an extent equal to or in excess of the projected sea level rise, it is difficult to put much stock in the predicted loss of land. But even placing that problem to the side, accepting a century-long time horizon and a series of compounded estimates renders requirements of imminence and imme-

diacy utterly toothless. See *Defenders of Wildlife*, *supra*, at 565, n. 2 (while the concept of "'imminence'" in standing doctrine is "somewhat elastic," it can be "stretched beyond the breaking point"). "Allegations of possible future injury do not satisfy the requirements of Art. III. A threatened injury must be *certainly impending* to constitute injury in fact." *Whitmore*, *supra*, at 158. (internal quotation marks omitted; emphasis added).

III

Petitioners' reliance on Massachusetts's loss of coastal land as their injury in fact for standing purposes creates insurmountable problems for them with respect to causation and redressability. To establish standing, petitioners must show a causal connection between that specific injury and the lack of new motor vehicle greenhouse gas emission standards, and that the promulgation of such standards would likely redress that injury. As is often the case, the questions of causation and redressability overlap. See *Allen*, 468 U. S., at 753, n. 19 (observing that the two requirements were "initially articulated by this Court as two facets of a single causation requirement" (internal quotation marks omitted)). And importantly, when a party is challenging the Government's allegedly unlawful regulation, or lack of regulation, of a third party, satisfying the causation and redressability requirements becomes "substantially more difficult." *Defenders of Wildlife*, *supra*, at 562 (internal quotation marks omitted); see also *Warth*, *supra*, at 504–505.

Petitioners view the relationship between their injuries and EPA's failure to promulgate new motor vehicle greenhouse gas emission standards as simple and direct: Domestic motor vehicles emit carbon dioxide and other greenhouse gases. Worldwide emissions of greenhouse gases contribute to global warming and therefore also to petitioners' alleged injuries. Without the new vehicle

standards, greenhouse gas emissions—and therefore global warming and its attendant harms—have been higher than they otherwise would have been; once EPA changes course, the trend will be reversed.

The Court ignores the complexities of global warming, and does so by now disregarding the "particularized" injury it relied on in step one, and using the dire nature of global warming itself as a bootstrap for finding causation and redressability. First, it is important to recognize the extent of the emissions at issue here. Because local greenhouse gas emissions disperse throughout the atmosphere and remain there for anywhere from 50 to 200 years, it is global emissions data that are relevant. See App. to Pet. for Cert. A–73. According to one of petitioners' declarations, domestic motor vehicles contribute about 6 percent of global carbon dioxide emissions and 4 percent of global greenhouse gas emissions. Stdg. App. 232. The amount of global emissions at issue here is smaller still; §202(a)(1) of the Clean Air Act covers only *new* motor vehicles and *new* motor vehicle engines, so petitioners' desired emission standards might reduce only a fraction of 4 percent of global emissions.

This gets us only to the relevant greenhouse gas emissions; linking them to global warming and ultimately to petitioners' alleged injuries next requires consideration of further complexities. As EPA explained in its denial of petitioners' request for rulemaking,

> "predicting future climate change necessarily involves a complex web of economic and physical factors including: our ability to predict future global anthropogenic emissions of [greenhouse gases] and aerosols; the fate of these emissions once they enter the atmosphere (e.g., what percentage are absorbed by vegetation or are taken up by the oceans); the impact of those emissions that remain in the atmosphere on the

> radiative properties of the atmosphere; changes in critically important climate feedbacks (e.g., changes in cloud cover and ocean circulation); changes in temperature characteristics (e.g., average temperatures, shifts in daytime and evening temperatures); changes in other climatic parameters (e.g., shifts in precipitation, storms); and ultimately the impact of such changes on human health and welfare (e.g., increases or decreases in agricultural productivity, human health impacts)." App. to Pet. for Cert. A–83 through A–84.

Petitioners are never able to trace their alleged injuries back through this complex web to the fractional amount of global emissions that might have been limited with EPA standards. In light of the bit-part domestic new motor vehicle greenhouse gas emissions have played in what petitioners describe as a 150-year global phenomenon, and the myriad additional factors bearing on petitioners' alleged injury—the loss of Massachusetts coastal land—the connection is far too speculative to establish causation.

IV

Redressability is even more problematic. To the tenuous link between petitioners' alleged injury and the indeterminate fractional domestic emissions at issue here, add the fact that petitioners cannot meaningfully predict what will come of the 80 percent of global greenhouse gas emissions that originate outside the United States. As the Court acknowledges, "developing countries such as China and India are poised to increase greenhouse gas emissions substantially over the next century," *ante*, at 23, so the domestic emissions at issue here may become an increasingly marginal portion of global emissions, and any decreases produced by petitioners' desired standards are likely to be overwhelmed many times over by emissions increases elsewhere in the world.

Petitioners offer declarations attempting to address this uncertainty, contending that "[i]f the U. S. takes steps to reduce motor vehicle emissions, other countries are very likely to take similar actions regarding their own motor vehicles using technology developed in response to the U. S. program." Stdg. App. 220; see also *id.*, at 311–312. In other words, do not worry that other countries will contribute far more to global warming than will U. S. automobile emissions; someone is bound to invent something, and places like the People's Republic of China or India will surely require use of the new technology, regardless of cost. The Court previously has explained that when the existence of an element of standing "depends on the unfettered choices made by independent actors not before the courts and whose exercise of broad and legitimate discretion the courts cannot presume either to control or to predict," a party must present facts supporting an assertion that the actor will proceed in such a manner. *Defenders of Wildlife*, 504 U. S., at 562 (quoting *ASARCO Inc.* v. *Kadish*, 490 U. S. 605, 615 (1989) (opinion of KENNEDY, J.); internal quotation marks omitted). The declarations' conclusory (not to say fanciful) statements do not even come close.

No matter, the Court reasons, because *any* decrease in domestic emissions will "slow the pace of global emissions increases, no matter what happens elsewhere." *Ante*, at 23. Every little bit helps, so Massachusetts can sue over any little bit.

The Court's sleight-of-hand is in failing to link up the different elements of the three-part standing test. What must be *likely* to be redressed is the particular injury in fact. The injury the Court looks to is the asserted loss of land. The Court contends that regulating domestic motor vehicle emissions will reduce carbon dioxide in the atmosphere, *and therefore* redress Massachusetts's injury. But even if regulation *does* reduce emissions—to some inde-

terminate degree, given events elsewhere in the world—the Court never explains why that makes it *likely* that the injury in fact—the loss of land—will be redressed. Schoolchildren know that a kingdom might be lost "all for the want of a horseshoe nail," but "likely" redressability is a different matter. The realities make it pure conjecture to suppose that EPA regulation of new automobile emissions will *likely* prevent the loss of Massachusetts coastal land.

V

Petitioners' difficulty in demonstrating causation and redressability is not surprising given the evident mismatch between the source of their alleged injury—catastrophic global warming—and the narrow subject matter of the Clean Air Act provision at issue in this suit. The mismatch suggests that petitioners' true goal for this litigation may be more symbolic than anything else. The constitutional role of the courts, however, is to decide concrete cases—not to serve as a convenient forum for policy debates. See *Valley Forge Christian College* v. *Americans United for Separation of Church and State, Inc.*, 454 U. S. 464, 472 (1982) ("[Standing] tends to assure that the legal questions presented to the court will be resolved, not in the rarified atmosphere of a debating society, but in a concrete factual context conducive to a realistic appreciation of the consequences of judicial action").

When dealing with legal doctrine phrased in terms of what is "fairly" traceable or "likely" to be redressed, it is perhaps not surprising that the matter is subject to some debate. But in considering how loosely or rigorously to define those adverbs, it is vital to keep in mind the purpose of the inquiry. The limitation of the judicial power to cases and controversies "is crucial in maintaining the tripartite allocation of power set forth in the Constitution." *DaimlerChrysler*, 547 U. S., at ___ (slip op., at 5) (internal

quotation marks omitted). In my view, the Court today—addressing Article III's "core component of standing," *Defenders of Wildlife*, *supra*, at 560—fails to take this limitation seriously.

To be fair, it is not the first time the Court has done so. Today's decision recalls the previous high-water mark of diluted standing requirements, *United States* v. *Students Challenging Regulatory Agency Procedures (SCRAP)*, 412 U. S. 669 (1973). *SCRAP* involved "[p]robably the most attenuated injury conferring Art. III standing" and "surely went to the very outer limit of the law"—until today. *Whitmore*, 495 U. S., at 158–159; see also *Lujan* v. *National Wildlife Federation*, 497 U. S. 871, 889 (1990) (*SCRAP* "has never since been emulated by this Court"). In *SCRAP*, the Court based an environmental group's standing to challenge a railroad freight rate surcharge on the group's allegation that increases in railroad rates would cause an increase in the use of nonrecyclable goods, resulting in the increased need for natural resources to produce such goods. According to the group, some of these resources might be taken from the Washington area, resulting in increased refuse that might find its way into area parks, harming the group's members. 412 U. S., at 688.

Over time, *SCRAP* became emblematic not of the looseness of Article III standing requirements, but of how utterly manipulable they are if not taken seriously as a matter of judicial self-restraint. *SCRAP* made standing seem a lawyer's game, rather than a fundamental limitation ensuring that courts function as courts and not intrude on the politically accountable branches. Today's decision is *SCRAP* for a new generation.[2]

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[2]The difficulty with *SCRAP*, and the reason it has not been followed, is not the portion cited by the Court. See *ante*, at 23–24, n. 24. Rather, it is the *attenuated* nature of the injury there, and here, that is so

Perhaps the Court recognizes as much. How else to explain its need to devise a new doctrine of state standing to support its result? The good news is that the Court's "special solicitude" for Massachusetts limits the future applicability of the diluted standing requirements applied in this case. The bad news is that the Court's self-professed relaxation of those Article III requirements has caused us to transgress "the proper—and properly limited—role of the courts in a democratic society." *Allen*, 468 U. S., at 750 (internal quotation marks omitted).

I respectfully dissent.

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troubling. Even in *SCRAP*, the Court noted that what was required was "something more than an ingenious academic exercise in the conceivable," 412 U. S., at 688, and we have since understood the allegation there to have been "that the string of occurrences alleged would happen *immediately*." *Whitmore* v. *Arkansas*, 495 U. S. 149, 159 (1990) (emphasis added). That is hardly the case here.

The Court says it is "quite wrong" to compare petitioners' challenging "EPA's parsimonious construction of the Clean Air Act to a mere 'lawyer's game.'" *Ante*, at 24, n. 24. Of course it is not the legal challenge that is merely "an ingenious academic exercise in the conceivable," *SCRAP*, *supra*, at 688, but the assertions made in support of standing.

SUPREME COURT OF THE UNITED STATES

No. 05–1120

MASSACHUSETTS, ET AL., PETITIONERS *v.* ENVIRONMENTAL PROTECTION AGENCY ET AL.

ON WRIT OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE DISTRICT OF COLUMBIA CIRCUIT

[April 2, 2007]

JUSTICE SCALIA, with whom THE CHIEF JUSTICE, JUSTICE THOMAS, and JUSTICE ALITO join, dissenting.

I join THE CHIEF JUSTICE's opinion in full, and would hold that this Court has no jurisdiction to decide this case because petitioners lack standing. The Court having decided otherwise, it is appropriate for me to note my dissent on the merits.

I

A

The provision of law at the heart of this case is §202(a)(1) of the Clean Air Act (CAA), which provides that the Administrator of the Environmental Protection Agency (EPA) "shall by regulation prescribe . . . standards applicable to the emission of any air pollutant from any class or classes of new motor vehicles or new motor vehicle engines, which *in his judgment* cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U. S. C. §7521(a)(1) (emphasis added). As the Court recognizes, the statute "condition[s] the exercise of EPA's authority on its formation of a 'judgment.'" *Ante*, at 30. There is no dispute that the Administrator has made no such judgment in this case. See *ante*, at 32 ("We need not and do not reach the question whether on remand EPA must make an endan-

germent finding"); 68 Fed. 52929 (2003) ("[N]o Administrator has made a finding under any of the CAA's regulatory provisions that CO_2 meets the applicable statutory criteria for regulation").

The question thus arises: Does anything *require* the Administrator to make a "judgment" whenever a petition for rulemaking is filed? Without citation of the statute or any other authority, the Court says yes. Why is that so? When Congress wishes to make private action force an agency's hand, it knows how to do so. See, *e.g.*, *Brock* v. *Pierce County*, 476 U. S. 253, 254–255 (1986) (discussing the Comprehensive Employment and Training Act (CETA), 92 Stat. 1926, 29 U. S. C. §816(b) (1976 ed., Supp. V), which "provide[d] that the Secretary of Labor 'shall' issue a final determination as to the misuse of CETA funds by a grant recipient within 120 days after receiving a complaint alleging such misuse"). Where does the CAA say that the EPA Administrator is required to come to a decision on this question whenever a rulemaking petition is filed? The Court points to no such provision because none exists.

Instead, the Court invents a multiple-choice question that the EPA Administrator must answer when a petition for rulemaking is filed. The Administrator must exercise his judgment in one of three ways: (a) by concluding that the pollutant *does* cause, or contribute to, air pollution that endangers public welfare (in which case EPA is required to regulate); (b) by concluding that the pollutant *does not* cause, or contribute to, air pollution that endangers public welfare (in which case EPA is *not* required to regulate); or (c) by "provid[ing] some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether" greenhouse gases endanger public welfare, *ante*, at 30, (in which case EPA is *not* required to regulate).

I am willing to assume, for the sake of argument, that

the Administrator's discretion in this regard is not entirely unbounded—that if he has no reasonable basis for deferring judgment he must grasp the nettle at once. The Court, however, with no basis in text or precedent, rejects all of EPA's stated "policy judgments" as not "amount[ing] to a reasoned justification," *ante*, at 31, effectively narrowing the universe of potential reasonable bases to a single one: Judgment can be delayed *only* if the Administrator concludes that "the scientific uncertainty is [too] profound." *Ibid.* The Administrator is precluded from concluding *for other reasons* "that it would . . . be better not to regulate at this time." *Ibid.*[1] Such other reasons—perfectly valid reasons—were set forth in the agency's statement.

> "We do not believe . . . that it would be either effective or appropriate for EPA to establish [greenhouse gas] standards for motor vehicles at this time. As described in detail below, the President has laid out a comprehensive approach to climate change that calls for near-term voluntary actions and incentives along with programs aimed at reducing scientific uncertainties and encouraging technological development so that the government may effectively and efficiently address the climate change issue over the long term.
>
> . . . . .
>
> "[E]stablishing [greenhouse gas] emission standards for U. S. motor vehicles at this time would . . . result in an inefficient, piecemeal approach to addressing the climate change issue. The U. S. motor vehicle fleet is one of many sources of [greenhouse gas] emissions both here and abroad, and different [greenhouse

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[1]The Court's way of putting it is, of course, not quite accurate. The issue is whether it would be better *to defer the decision about whether to exercise judgment*. This has the *effect* of deferring regulation but is quite a different determination.

> gas] emission sources face different technological and financial challenges in reducing emissions. A sensible regulatory scheme would require that all significant sources and sinks of [greenhouse gas] emissions be considered in deciding how best to achieve any needed emission reductions.
>
> "Unilateral EPA regulation of motor vehicle [greenhouse gas] emissions could also weaken U. S. efforts to persuade developing countries to reduce the [greenhouse gas] intensity of their economies. Considering the large populations and growing economies of some developing countries, increases in their [greenhouse gas] emissions could quickly overwhelm the effects of [greenhouse gas] reduction measures in developed countries. Any potential benefit of EPA regulation could be lost to the extent other nations decided to let their emissions significantly increase in view of U. S. emissions reductions. Unavoidably, climate change raises important foreign policy issues, and it is the President's prerogative to address them." 68 Fed. Reg. 52929–52931 (footnote omitted).

The Court dismisses this analysis as "rest[ing] on reasoning divorced from the statutory text." *Ante,* at 30. "While the statute does condition the exercise of EPA's authority on its formation of a 'judgment,' . . . that judgment must relate to whether an air pollutant 'cause[s], or contribute[s] to, air pollution which may reasonably be anticipated to endanger public health or welfare.'" *Ibid.* True but irrelevant. When the Administrator *makes* a judgment whether to regulate greenhouse gases, that judgment must relate to whether they are air pollutants that "cause, or contribute to, air pollution which may reasonably be anticipated to endanger public health or welfare." 42 U. S. C. §7521(a)(1). But the statute says *nothing at all* about the reasons for which the Administra-

tor may *defer* making a judgment—the permissible reasons for deciding not to grapple with the issue at the present time. Thus, the various "policy" rationales, *ante,* at 31, that the Court criticizes are not "divorced from the statutory text," *ante,* at 30, except in the sense that the statutory text is silent, as texts are often silent about permissible reasons for the exercise of agency discretion. The reasons the EPA gave are surely considerations executive agencies *regularly* take into account (and *ought* to take into account) when deciding whether to consider entering a new field: the impact such entry would have on other Executive Branch programs and on foreign policy. There is no basis in law for the Court's imposed limitation.

EPA's interpretation of the discretion conferred by the statutory reference to "its judgment" is not only reasonable, it is the most natural reading of the text. The Court nowhere explains why this interpretation is incorrect, let alone why it is not entitled to deference under *Chevron U. S. A. Inc.* v. *Natural Resources Defense Council, Inc.*, 467 U. S. 837 (1984). As the Administrator acted within the law in declining to make a "judgment" for the policy reasons above set forth, I would uphold the decision to deny the rulemaking petition on that ground alone.

B

Even on the Court's own terms, however, the same conclusion follows. As mentioned above, the Court gives EPA the option of determining that the science is too uncertain to allow it to form a "judgment" as to whether greenhouse gases endanger public welfare. Attached to this option (on what basis is unclear) is an essay requirement: "If," the Court says, "the scientific uncertainty is so profound that it precludes EPA from making a reasoned judgment as to whether greenhouse gases contribute to global warming, EPA must say so." *Ante,* at 31. But EPA *has* said precisely that—and at great length, based on

information contained in a 2001 report by the National Research Council (NRC) entitled Climate Change Science: An Analysis of Some Key Questions:

> "As the NRC noted in its report, concentrations of [greenhouse gases (GHGs)] are increasing in the atmosphere as a result of human activities (pp. 9–12). It also noted that '[a] diverse array of evidence points to a warming of global surface air temperatures' (p. 16). The report goes on to state, however, that '[b]ecause of the large and still uncertain level of natural variability inherent in the climate record and the uncertainties in the time histories of the various forcing agents (and particularly aerosols), a [causal] linkage between the buildup of greenhouse gases in the atmosphere and the observed climate changes during the 20th century cannot be unequivocally established. The fact that the magnitude of the observed warming is large in comparison to natural variability as simulated in climate models is suggestive of such a linkage, but it does not constitute proof of one because the model simulations could be deficient in natural variability on the decadal to century time scale' (p. 17).
>
> "The NRC also observed that 'there is considerable uncertainty in current understanding of how the climate system varies naturally and reacts to emissions of [GHGs] and aerosols' (p. 1). As a result of that uncertainty, the NRC cautioned that 'current estimate of the magnitude of future warming should be regarded as tentative and subject to future adjustments (either upward or downward).' *Id.* It further advised that '[r]educing the wide range of uncertainty inherent in current model predictions of global climate change will require major advances in understanding and modeling of both (1) the factors that determine at-

mospheric concentrations of [GHGs] and aerosols and (2) the so-called "feedbacks" that determine the sensitivity of the climate system to a prescribed increase in [GHGs].' *Id.*

"The science of climate change is extraordinarily complex and still evolving. Although there have been substantial advances in climate change science, there continue to be important uncertainties in our understanding of the factors that may affect future climate change and how it should be addressed. As the NRC explained, predicting future climate change necessarily involves a complex web of economic and physical factors including: Our ability to predict future global anthropogenic emissions of GHGs and aerosols; the fate of these emissions once they enter the atmosphere (*e.g.*, what percentage are absorbed by vegetation or are taken up by the oceans); the impact of those emissions that remain in the atmosphere on the radiative properties of the atmosphere; changes in critically important climate feedbacks (*e.g.*, changes in cloud cover and ocean circulation); changes in temperature characteristics (*e.g.*, average temperatures, shifts in daytime and evening temperatures); changes in other climatic parameters (*e.g.*, shifts in precipitation, storms); and ultimately the impact of such changes on human health and welfare (*e.g.*, increases or decreases in agricultural productivity, human health impacts). The NRC noted, in particular, that '[t]he understanding of the relationships between weather/climate and human health is in its infancy and therefore the health consequences of climate change are poorly understood' (p. 20). Substantial scientific uncertainties limit our ability to assess each of these factors and to separate out those changes resulting from natural variability from those that are directly the result of increases in anthropogenic

GHGs.

"Reducing the wide range of uncertainty inherent in current model predictions will require major advances in understanding and modeling of the factors that determine atmospheric concentrations of greenhouse gases and aerosols, and the processes that determine the sensitivity of the climate system." 68 Fed. Reg. 52930.

I simply cannot conceive of what else the Court would like EPA to say.

II

A

Even before reaching its discussion of the word "judgment," the Court makes another significant error when it concludes that "§202(a)(1) of the Clean Air Act *authorizes* EPA to regulate greenhouse gas emissions from new motor vehicles in the event that it forms a 'judgment' that such emissions contribute to climate change." *Ante*, at 25 (emphasis added). For such authorization, the Court relies on what it calls "the Clean Air Act's capacious definition of 'air pollutant.'" *Ante*, at 30.

"Air pollutant" is defined by the Act as "any air pollution agent or combination of such agents, including any physical, chemical, . . . substance or matter which is emitted into or otherwise enters the ambient air." 42 U. S. C. §7602(g). The Court is correct that "[c]arbon dioxide, methane, nitrous oxide, and hydrofluorocarbons," *ante*, at 26, fit within the second half of that definition: They are "physical, chemical, . . . substance[s] or matter which [are] emitted into or otherwise ente[r] the ambient air." But the Court mistakenly believes this to be the end of the analysis. In order to be an "air pollutant" under the Act's definition, the "substance or matter [being] emitted into . . . the ambient air" must also meet the *first* half of the definition—namely, it must be an "air pollution agent or combi-

nation of such agents." The Court simply pretends this half of the definition does not exist.

The Court's analysis faithfully follows the argument advanced by petitioners, which focuses on the word "including" in the statutory definition of "air pollutant." See Brief for Petitioners 13–14. As that argument goes, anything that *follows* the word "including" must necessarily be a subset of whatever *precedes* it. Thus, if greenhouse gases qualify under the phrase following the word "including," they must qualify under the phrase preceding it. Since greenhouse gases come within the capacious phrase "any physical, chemical, . . . substance or matter which is emitted into or otherwise enters the ambient air," they must also be "air pollution agent[s] or combination[s] of such agents," and therefore meet the definition of "air pollutant[s]."

That is certainly one possible interpretation of the statutory definition. The word "including" can indeed indicate that what follows will be an "illustrative" sampling of the general category that precedes the word. *Federal Land Bank of St. Paul* v. *Bismarck Lumber Co.*, 314 U. S. 95, 100 (1941). Often, however, the examples standing alone are broader than the general category, and must be viewed as limited in light of that category. The Government provides a helpful (and unanswered) example: "The phrase 'any American automobile, including any truck or minivan,' would not naturally be construed to encompass a foreign-manufactured [truck or] minivan." Brief for Federal Respondent 34. The general principle enunciated—that the speaker is talking about *American* automobiles—carries forward to the illustrative examples (trucks and minivans), and limits them accordingly, even though in isolation they are broader. Congress often uses the word "including" in this manner. In 28 U. S. C. §1782(a), for example, it refers to "a proceeding in a foreign or international tribunal, including criminal investi-

gations conducted before formal accusation." Certainly this provision would not encompass criminal investigations underway in a *domestic* tribunal. See also, *e.g.*, 2 U. S. C. §54(a) ("The Clerk of the House of Representatives shall, at the request of a Member of the House of Representatives, furnish to the Member, for official use only, one set of a privately published annotated version of the United States Code, including supplements and pocket parts"); 22 U. S. C. §2304(b)(1) ("the relevant findings of appropriate international organizations, including nongovernmental organizations").

In short, the word "including" does not require the Court's (or the petitioners') result. It is perfectly reasonable to view the definition of "air pollutant" in its entirety: An air pollutant *can* be "any physical, chemical, . . . substance or matter which is emitted into or otherwise enters the ambient air," but only if it retains the general characteristic of being an "air pollution agent or combination of such agents." This is precisely the conclusion EPA reached: "[A] substance does not meet the CAA definition of 'air pollutant' simply because it is a 'physical, chemical, . . . substance or matter which is emitted into or otherwise enters the ambient air.' It must also be an 'air pollution agent.'" 68 Fed. Reg. 52929, n. 3. See also *id.*, at 52928 ("The root of the definition indicates that for a substance to be an 'air pollutant,' it must be an 'agent' of 'air pollution'"). Once again, in the face of textual ambiguity, the Court's application of *Chevron* deference to EPA's interpretation of the word "including" is nowhere to be found.[2]

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[2] Not only is EPA's interpretation reasonable, it is far more plausible than the Court's alternative. As the Court correctly points out, "all airborne compounds of whatever stripe," *ante*, at 26, would qualify as "physical, chemical, . . . substance[s] or matter which [are] emitted into or otherwise ente[r] the ambient air." 42 U. S. C. §7602(g). It follows that *everything* airborne, from Frisbees to flatulence, qualifies as an "air pollutant." This reading of the statute defies common sense.

Evidently, the Court defers only to those reasonable interpretations that it favors.

B

Using (as we ought to) EPA's interpretation of the definition of "air pollutant," we must next determine whether greenhouse gases are "agent[s]" of "air pollution." If so, the statute would authorize regulation; if not, EPA would lack authority.

Unlike "air pollutants," the term "air pollution" is not itself defined by the CAA; thus, once again we must accept EPA's interpretation of that ambiguous term, provided its interpretation is a "permissible construction of the statute." *Chevron*, 467 U. S., at 843. In this case, the petition for rulemaking asked EPA for "regulation of [greenhouse gas] emissions from motor vehicles to reduce the risk of global climate change." 68 Fed. Reg. 52925. Thus, in deciding whether it had authority to regulate, EPA had to determine whether the concentration of greenhouse gases assertedly responsible for "global climate change" qualifies as "air pollution." EPA began with the commonsense observation that the "[p]roblems associated with atmospheric concentrations of CO_2," *id.*, at 52927, bear little resemblance to what would naturally be termed "air pollution":

> "EPA's prior use of the CAA's general regulatory provisions provides an important context. Since the inception of the Act, EPA has used these provisions to address air pollution problems that occur primarily at ground level or near the surface of the earth. For example, national ambient air quality standards (NAAQS) established under CAA section 109 address concentrations of substances in the ambient air and the related public health and welfare problems. This has meant setting NAAQS for concentrations of ozone, carbon monoxide, particulate matter and other sub-

> stances in the air near the surface of the earth, not higher in the atmosphere. . . . CO_2, by contrast, is fairly consistent in concentration throughout the world's atmosphere up to approximately the lower stratosphere." *Id.*, at 52926–52927.

In other words, regulating the buildup of CO_2 and other greenhouse gases in the upper reaches of the atmosphere, which is alleged to be causing global climate change, is not akin to regulating the concentration of some substance that is *polluting* the *air*.

We need look no further than the dictionary for confirmation that this interpretation of "air pollution" is eminently reasonable. The definition of "pollute," of course, is "[t]o make or render impure or unclean." Webster's New International Dictionary 1910 (2d ed. 1949). And the first three definitions of "air" are as follows: (1) "[t]he invisible, odorless, and tasteless mixture of gases which surrounds the earth"; (2) "[t]he body of the earth's atmosphere; esp., the part of it near the earth, as distinguished from the upper rarefied part"; (3) "[a] portion of air or of the air considered with respect to physical characteristics or as affecting the senses." *Id.*, at 54. EPA's conception of "air pollution"—focusing on impurities in the "ambient air" "at ground level or near the surface of the earth"—is perfectly consistent with the natural meaning of that term.

In the end, EPA concluded that since "CAA authorization to regulate is generally based on a finding that an air pollutant causes or contributes to air pollution," 68 Fed. Reg. 52928, the concentrations of CO_2 and other greenhouse gases allegedly affecting the global climate are beyond the scope of CAA's authorization to regulate. "[T]he term 'air pollution' as used in the regulatory provisions cannot be interpreted to encompass global climate change." *Ibid.* Once again, the Court utterly fails to explain why this interpretation is incorrect, let alone so

unreasonable as to be unworthy of *Chevron* deference.

* * *

The Court's alarm over global warming may or may not be justified, but it ought not distort the outcome of this litigation. This is a straightforward administrative-law case, in which Congress has passed a malleable statute giving broad discretion, not to us but to an executive agency. No matter how important the underlying policy issues at stake, this Court has no business substituting its own desired outcome for the reasoned judgment of the responsible agency.